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TOWN AND COUNTRY TOMORROW

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Frontispiece.



Photo : G. M. Boumphrey.

The English eighteenth-century street . . .



Photo : G. M. Boumphrey.

. . . and the twentieth.

TOWN AND COUNTRY TOMORROW

by
GEOFFREY BOUMPHREY



With an Introduction by
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TO
CHARLES DE PEYER
A SLIGHT RETURN
FOR SERVICES RENDERED

INTRODUCTION

IN all modern communities there exists a spirit of inertia so powerful in its drugged somnolence that the efforts of reformers and those who see visions and dream dreams are all too often lost completely or, if not lost, the impression they make upon current thought is so small that a man's lifetime seems inadequate to tasks of any magnitude.

Usually the most that can be hoped for by an individual is a partial moulding of the shape of future progress, but so great is the urge in some men to give to mankind the benefits of experience and thought, that they are driven to strive by all possible means to influence the trend of those slow but far-reaching changes which are taking place continually wherever human beings are gathered together.

At no time in history was there a greater need, at least in this country, for efforts to overcome the prevailing apathy towards the growth and development of our towns and cities and towards the proper preservation and use of our countryside.

Perhaps the most dangerous aspect of this apathy is the opinion, expressed quite commonly amongst informed people, that conditions have become so bad in certain parts of the country that the only possible remedy would be so drastic as to be impracticable.

No opinion could possibly be more dangerous, because development and redevelopment are bound to take place, and such a negative attitude leads to lack of control, and even to lack of proper investigation.

In this book an attempt is made to outline a policy of physical planning which takes into account a great number of factors, the correct establishment of which is more im-

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portant to the people than the people realize, and its publication will have achieved a very important object if only it stimulates a keener interest and a more profound appreciation of existing conditions and their possible remedy.

There is more to be achieved, however, than stimulation of interest—there is research and study to be undertaken ; there is education to be carried on ; there are experiments to be made ; and, perhaps more difficult than anything else, there is drastic reform of legislation to be carried against the opposition of vested interests.

Mr. Boumphrey sets out to indicate in no uncertain manner a method of overcoming some of the major evils of the uncontrolled growth of urban development since the commencement of the industrial era in Great Britain.

It is difficult to imagine a more suitable experience for the task than he possesses. Unbiased to the extent of having no hobby-horse to ride, the Author has the precise and logical training of an engineer and the inquiring outlook of investigation over a long period into most of the kindred subjects ; he has had facilities for travel and contact such as few people can obtain and, most important, the ever present necessity of clear and simple expression in words of what he has seen and heard in order that his many broadcast talks should be logical and clear.

These qualifications by themselves should ensure for Mr. Boumphrey's opinions a considerable respect, and when those opinions find an echo, as they do, in much of the advanced experience of experts throughout the country, they may well merit a very serious study by all who have at heart the welfare of the public.

We have had during the last century many examples of urban development, some good, some very bad. Since the great housing drive commenced in 1919 there has been a concentration on numbers and very little time for study. What we have produced, however, has the advantage of being better than nothing at all, and better indeed than what existed. But by no stretch of imagination can it be considered to have solved adequately any problem other than

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the numerical one ; it certainly has not helped very much towards clearing away and rebuilding our older urban centres, and it has created difficulties of greater magnitude for the present and future generations to tackle.

The ideals discussed in the following chapters do deal with those problems, and whilst it would be too much to expect that they should envisage and solve every possible difficulty, there is a general aspect of practical probability about them that cannot be gainsaid.

They spring from the very foundation of space economy, the ignoring of which is creating vast problems for the future, and they contain a solution of those older evils which we are striving to eliminate.

The Author is cunning—like the pieman he suggests only that you “taste his wares” knowing full well that business will follow—but can we afford to neglect any experiment which may give us an answer to our questions? Can we allow apathy to leave us indefinitely on paths which experience is showing to be narrow and not over straight?

The present emergency may give the opportunity we require to break with recent tradition, and this book may be most timely ; but whether or not its suggestions become possible, the problems of war are less important than the problems of peace, and the solution of the one will not avoid consideration of the other.

Mr. Boumphrey pursues his scheme throughout with the utmost clarity—where he leaves it the artist and the scientist must pick it up and make of the ideal a reality. In so doing they would have an aim in the achievement of which they need not be ashamed.

HERBERT J. MANZONI.

January 11, 1940.

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AUTHOR'S FOREWORD

SINCE the opinions expressed in this book are unusual and will be more or less new to the majority of people with no special technical knowledge, it seems only fair that the reader should be helped in deciding what importance they merit by being told in advance why and how they have been formed. I, too, in self-defence should like to make my own position quite clear, and perhaps disarm a certain amount of irrelevant criticism.

To begin with, then, I have no axe to grind. I belong to no political party and engage in no profession directly or indirectly connected with building or estate development. An engineer's training, discarded more than twenty years ago, now serves merely to make me dislike inefficiency. Long experience as a critic of design has developed my appreciation of order—which is so essential to efficiency. Born and bred in the country, I lived for eighteen years in London : I claim therefore to speak for town and country with equal voice. I should find it hard to say whether the urge behind my work is due to a deep love of the countryside, which yearly I see being despoiled—all to no good purpose, as I believe—or to regret at what seem to me the wasted opportunities in our towns.

Three main sources of information underlie the

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opinions expressed here. The first is that of personal observation. Several hundred broadcast talks and debates have been based on long and detailed surveys made over an aggregate of many thousands of miles through most of Britain and the countries of the Continent, neglecting few towns of real importance. In some of these tours architecture and planning were the main considerations ; in others social conditions were first in mind. The titles of certain series may be remembered by some : " Ripe for Development ", " Looking for the Town of Tomorrow ", " Your Home and Mine ", " The Changing Midlands ", and so on. Taken together, they provided the opportunity for an all-round study of the whole problem, such as could otherwise have been undertaken only by a moneyed and leisured enthusiast. These surveys also helped greatly in my second source of information—personal discussion. Innumerable conversations with men and women, each perhaps expert in some particular branch of the subject or taken as " typical specimens ", have contributed to the views formed. In this way architects, planners, social workers, officials of local authorities, and many others have added their several touches to what I hope is now a reasonably complete picture. Third, of course, comes the study of practically all important and many not so important books on the subject, of relevant articles, and—last but not least—of the many letters from listeners to the broadcasts, who have been moved to give their own particular reactions or experiences.

The average man, with his daily work to do, cannot possibly have time to collect and study anything like such a mass of data. It is for him to decide whether the conclusions given in this book are to be accepted. May

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I ask him, when forming his decision, to bear the following points in mind : (i) that it is essential, when considering the question of town planning—and especially in so far as housing is concerned—to keep *all* the relevant factors in view, and not allow any one aspect to assume undue importance ; (ii) that no method of housing can be equally acceptable to every one, and that in a community such as our own the greatest good of the greatest proportion of that community must be sought ; (iii) that it is not proposed to abolish existing methods in favour of the type of development particularly recommended here, but merely to supplement them—and that only in our larger towns ; (iv) that there exists nowhere in the world at present an adequate layout on these lines (though in Sweden, Germany, Switzerland and elsewhere imperfect examples are to be seen) and so a considerable effort of imagination is needed to visualize its advantages ; (v) that these advantages are by no means imaginary or theoretical, but are in every case capable of definite proof in advance.

Many technical experts are already strongly in favour of the type of town development described in this book ; but, by very reason of their professional interests, the views of such people—architects, engineers and so on—are, rightly perhaps, viewed with a certain mistrust. The very large scale on which such development must be carried out, if the fullest advantages are to be obtained, makes unlikely the formation of a company of enthusiasts, such as sufficed to launch our garden cities. In existing large towns, mental inertia and the rights of property-owners and tenants present very formidable obstacles. Realization of the new type of town will only come by the mass conversion of thousands of thinking

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men and women to the principles involved. This book is a first attempt to procure such a conversion.

* * * * *

Since the foregoing was written, war has come upon us. This, some will consider, must put all thought of such luxuries as town and country planning out of the question for years to come. Such a view is over-hasty and erroneous. Whether its particular contentions be accepted or not, this book at least shows that planning—far from being an extravagance—can be made a source of immense national economy. It is safe to state that in no other way can so great a saving of public money be achieved without injury to the life of the whole community. Moreover, it is evident that however swiftly and successfully the war may run, its ending will bring a period of the greatest economic difficulty, while workers by the million are being turned over from war to peace conditions. One of the steps that must undoubtedly be taken to minimize the inevitable slump (unless the advice of almost every expert is to be disregarded) will be the promotion of public works on a vast scale. It is now, therefore, while the war still gives leisure for investigation and reflection, that we should decide what form this post-war activity shall take.

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PART I

THINGS AS THEY ARE

§ 1. *The Purpose of this Book*

“YOU don’t know when you’re well off!” is a phrase heard often enough; but surely its opposite, “You don’t know when you’re badly off,” describes the state of most of us far more truthfully—and in no case more so than in our attitude to town and country and the amenities of our homes. We put up with many discomforts and even hardships simply because we assume them to be inevitable. We grouse; but we bear them. Only when conditions become quite unendurable do we decide at last that something must be done. It is evident that our traffic problem, for instance, is rapidly approaching this critical stage at the present time: we cannot bear it much longer. But though ignorance of the possibility of improvement may be one of the chief reasons for our long-suffering habit, there are at least two others. The second is generally referred to as the conservatism of the British—though for the most part it might be more accurately

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described as mental inertia or laziness. The third is the influence of vested interests. This sinister phrase should not conjure up only a picture of carp-faced directors in city dress (though they would figure in it, of course) : it should include all those millions of people of every class who have some financial reason for wishing to keep things as they are, or who think they have. It must not be forgotten that the worst type of slum landlord is very often a working-class man who has put all his savings into some small bit of property. To encourage class warfare is to do more harm than good—and there is no evidence that the poorer classes, who must command our sympathy at present, would function any more benevolently than the plutocracy, if they were put in its place.

This last factor, vested interests, must be considered as outside the scope of this book. I am no politician, still less an expert in sociological finance. Any considerable improvement in town or country is bound to threaten hardship in individual cases. The recent campaigns against slums and overcrowding have caused innumerable instances of heart-rending personal disaster. One can only say that such cases can be and should be guarded against and alleviated. The gain to the community as a whole must be the warrant for the change. But in the present state of the country's exchequer it is quite evident that the gain must be financial in addition to any other advantages obtained. While we are committed to an expenditure on war-making which may reach heaven knows what figure, it would be fantastic to put forward any large scheme of improvement in any department of life which would not much more than pay for itself. No one could claim that our

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vast rehousing schemes since the last war have paid for themselves in cash. We learn from expert evidence that the cost per dwelling has been the highest in Europe, and has by no means given the best return on the money spent. Miss Elizabeth Denby writes in her book, *Europe Rehoused*: "The policy of granting a direct subsidy for land and buildings has been surprisingly extravagant. It can be justified only if these expensive new British homes surpass those of every other nation, incorporate every requisite for happy and healthy lives, and combine to form new areas which will wipe out the ugly heritage of the old industrial slums. On analysis this is, however, not so." My own investigations have led me to the same conclusion. What gains we can claim have been not in cash but in health and comfort—and even here it is not beyond argument that the balance is on the credit side. This book will consider no policy which cannot be proved financially sound. It is the first and second factors mentioned with which we shall be chiefly concerned. And as to the second of these—conservatism or mental inertia—surely this can best be dealt with by careful attention to the first. If it can be shown that the state of neither town nor country is satisfactory to the majority of us at the present time, and if, in addition, the causes for our dissatisfaction be pointed out (for by no means all of them are clearly recognized by every one of us) and a practical means of improvement be suggested—then there is some hope that a growing wave of protest may be created which will in the end sweep all obstacles away. I shall begin by seizing and holding up those causes for dissatisfaction which are already fairly well recognized.

§ 2. *The Traffic Problem*

Any one who happens to have read my earlier Discussion Book, *British Roads*, will have found in Section Five a fairly complete description of certain aspects of the traffic problem. That, however, dealt with road traffic only—here we must consider all forms of traffic. The particular aspect of the question which has been most in the public eye is that of road safety. More British have been slaughtered or maimed in the last twenty years on the roads than were killed or wounded in the Great War. Every 80 minutes sees another death ; each 2 minutes 20 seconds some one else is hurt. Is it any wonder that public interest has been roused ? The points to note here are, I think, firstly, that four-fifths of these casualties could have been avoided by proper road design (as proved by comparative observations), and secondly, that since nearly 75 per cent. of road accidents take place in built-up areas, the solution of our traffic difficulties is three times as urgent in the towns as in the country—regarded from the safety angle alone. But this is only one view of the problem. Hardly less important is the money that is pouring to waste in unnecessary traffic congestion. Here, again, the towns show up worst. The cost of traffic delay in London is estimated at £25,000,000 a year. Ten years ago the London General Omnibus Company estimated that it lost a million pounds a year in actual out-of-pocket expenses owing to the inability of its buses to keep up to their scheduled average speed of eight miles an hour. Messrs. J. Lyons and Co., Ltd., have calculated that deliveries during hours of traffic

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congestion cost them just twice as much as at night, when the streets are reasonably clear. In both cases it is the customer, of course, who eventually pays the bill—in higher fares and higher prices. So, too, with all the other examples of the price of delay that might be given: there is no one throughout the whole country who is not indirectly taxed by an unnecessarily high cost of living, made so by the traffic congestion. Motorists, private and commercial, may complain that they are being hedged in by an ever-increasing number of regulations in towns (regulations that must inevitably become more stringent in the near future); but even the poorest citizen, whose hopes of ever owning a car are the faintest, is bearing part of the same burden in the form of higher prices for almost every necessity of life. That is just some of the cost in money. But there is also the cost in time and comfort and fares. What city worker (and more than three-quarters of our entire population are employed in large towns) would not like to have the time of his journey to and from work materially shortened—to say nothing of a saving in fares? Anything more than an hour's journey means that there is little enough time left for home life except at week-ends—and even an hour is too much. We put up with long journeys, as we put up with the discomfort that often attends them, because we believe them to be part of an unavoidable price that must be paid by those who wish to live outside the more unpleasant parts of our towns. Here is a quotation from a broadcast discussion I had with the social manager* of a huge new suburb outside Birmingham. “The worst of suburban

*I should like to thank Mr. Richard Cottam for his kindness in allowing me to give this quotation.

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life is that it wastes the one thing man cannot replace—life itself. To add hours of travel every week to a man's working day is just foolishly taking away all the advantages given by lessening hours in industry, and furthermore it is making the job of the woman twice as long by giving her evening meals to prepare and long lonely days to endure. Time and time again I have been in houses at 7.30 and 8 p.m. and heard the same tale, 'Not home yet. It takes him over an hour to get from work.' The kids don't see their father from week-end to week-end—he's merely the man who mucks about in the garden every Sunday to them. Young workers who ought to be learning their jobs as future citizens are arriving home too late and tired to do anything, or, if they're working in a fairly clean job, they're making friends at their work, where there is no parental control over their choice, and are spending their leisure in the City." G. M. B.—"Don't you find that suburbs have enough amusements, then?" "No, you mustn't forget that whenever a new suburb is built and folk leave a crowded area, they need over twice as many theatres, cinemas, churches, clubs, etc., as they did before." This is not an exaggeration since, with twelve houses to the acre, all distances are increased, compared with, say, sixty to the acre. In point of fact, most of the new suburbs have far less amenities than the crowded areas. Take the question of school clinics, a very necessary part of the life of a well-populated area. Where one clinic will serve 50,000 people in a district where houses are close together, it will be totally inadequate where they are spaced out as in a new suburb; and if only one is provided, then some poor kiddies are going to have a terrific walk. Then again, a suburb

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usually has no centre of its communal life. One woman on a new estate told me that she always went to look at the shops once a day before she came to the suburbs. "Now", she said, "I don't go out much"—and told me that she had been into the older part of the city three times in as many years—once to see a baby in hospital and twice when her sister died. That woman might say what she thought about the loneliness of the suburbs—if there was no censor ! A suburb may be all right if the folk can either afford to provide their clubs, cricket grounds, and halls, or can afford to go to other parts for them ; but it is not so rosy where all the population are working-class and can't provide for their leisure time. The parents like it because Johnny or Mary has such rosy cheeks ; but it is harder when the growing daughter is away all day in the city. When the day's work is over she doesn't make the long journey home to a place where there is nothing doing. No, she tidies herself up in the cloakroom and goes off to spend the evening with her City friends, and catches a late bus home. And you can't blame her either. It is difficult sometimes for a mother to have a quiet mind then. And the same speaker later, on gardening : "You won't hear that talk on a K—— bus. Only about two folk per load can find room to read in the rush hours—and they don't read close-printed gardening papers. Very few of the tenants are even able to attend the excellent gardening lectures given on the estate. If they hadn't to spend so much time on the bus inhaling second-hand air they might have more leisure and energy for gardening. . . . The gardens are the best feature in a suburb ; most people like their own garden—but some would rather have public ones—some one

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else to do the work. And there are a lot of unused allotments in an estate like K——."

There then, from an expert who has spent years in a suburb working to improve the social conditions of its residents, we have (among other points which we shall consider later) the effect of the long distances which must separate most of the suburbs of any large town from the places of work and the real centres of urban amenities. The financial side of it, the pressure of heavy fares on incomes already barely adequate, needs no stressing; nor the fact that the cost of living is almost always higher in the suburbs than in the towns—even though rents may be scaled down according to the tenant's income. The housewife can no longer do her week's shopping at Saturday night's bargain prices—the market is too far away; and she finds that the upkeep of her new home costs her more in time as well as money than her old. There is the well-known report of the Medical Officer of Health for Stockton-on-Tees, who found that a pronounced rise in the death-rate was one result of moving poor people from slums into healthy suburban houses. Is this to be wondered at, when we know that even by the none-too-generous reckoning of the Medical Research Council a very considerable proportion of our population has to manage on incomes below the minimum healthy existence level? Sir Owen Williams has shown that the money spent on fares to and from work by the inhabitants of an outlying London suburb would suffice to pay a ground rent of $3\frac{1}{2}$ per cent. on land valued as high as £25,000 per acre, assuming that they were to be rehoused there in a manner comparable with that which we shall examine later. As the price of no land likely to be used

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for working-class housing, however centrally placed, would be likely to approach this figure (£5,000 to £7,000 being a fair average for typical central rehousing schemes), it is clear that the argument in favour of rehousing on the outskirts of towns to avoid the high land values of the central districts falls to the ground. On the contrary, in cutting out or reducing the cost of travelling to and from work there lies one possibility of making a substantial reduction in the cost of living.

Furthermore, if rehousing in central districts were to become the policy, and our suburbs were to cease their outwards sprawl and even to dwindle inwards, traffic conditions generally would improve to an extent almost unrealizable. The morning and evening rush-hours would be ameliorated. Daytime shoppers would find their journeys reduced from miles to furlongs or less—and the roads would be far less crowded in consequence. The strangulatory effect on traffic which is exercised in all our large towns by the turgid mass of suburbs surrounding them would be relaxed—and traffic, it should be remembered, is the life blood of our civilization.

§ 3. *The Spoliation of the Countryside*

The other main cause for dissatisfaction with the state of town and country today lies in the fate which is rapidly overtaking almost all our rural areas. Much devoted propaganda by such bodies as the Council for the Preservation of Rural England has done something to bring this before the public eye. These efforts have been helped by the fact that never before has the countryside been potentially of such great recreational

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value to the mass of the people as it is now. A hundred years ago, when conditions in our rapidly expanding industrial towns were approaching their worst, no doubt there was great need for the town-workers, underpaid, overworked, and unhealthy, to be able to enjoy the clean air and peace of the country. But until a very few years ago it was utterly beyond the means of most of them to get there. The habit of taking summer holidays, which spread gradually downwards throughout the Victorian era and succeeding reigns, did allow an ever-increasing number of townsfolk to visit the country once a year ; but it was not until the coming of the motor car and the cheapening of its cost by the mass-production methods, coupled with a general increase in the wages of the working-class, that the countryside was brought within easy reach of the mass of city workers. It is a sad corollary that the motor car, which has done so much to permit the frequent enjoyment of country beauty by all classes, has also helped those very processes which are spoiling its charm. No better idea of the extent and seriousness of this menace can be had than by reading a book, *Britain and the Beast*, in which twenty-six well-known men and women, under the editorship of Clough Williams-Ellis, tell of the progress of spoliation as it has affected their own districts or particular preoccupations. As my purpose here is to be as constructive as possible, I shall save space which might have been given to describing and lamenting the damage, and shall merely analyse its main features. First and most serious comes the complete loss of countryside owing to its absorption into towns and suburbs. One might think that there is plenty of country to spare, and that, in any case, since the towns

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must grow, the loss is an inevitable one. The answer to the first part of this is that there is by no means plenty of the sort of land usually absorbed by a town. In the first place, open land near any large town is particularly valuable by very reason of its nearness. Lying within easy reach of the townsfolk, it is invaluable for their healthy recreation, and it serves also to purify the atmosphere of the town itself. Its transformation into suburb merely increases the strangulatory effect on traffic which I have already pointed out. Furthermore, land on the outskirts of any town is very usually in a high state of cultivation, since for many years, perhaps for centuries—it has been used to grow fresh food for the townsfolk. Nothing is sadder, when driving out of London along the Great West Road and through Slough, than to reflect that for miles and miles on either hand, the land now heavily built up with little houses and factories was once among the most fertile soil in England. The market gardeners who cultivated it used to provide Londoners with a large proportion of their fruit and vegetables. It would now take a century or more to bring it back to its old fertility. The same story could be told of most of our great towns. No urban local authority has the knowledge or the wish to discriminate in what land is built over. And so, for the past quarter of a century England has been losing her richest soil at the rate of 35,000 acres a year—to the towns. In the year 1938–39 the loss was no less than 97,000 acres! Now at last, under the stern exigencies of war, agriculturalists are beginning to make their voices heard. The Government has been brought to realize that there is a grave shortage of properly farmed land. Lime issues have been made and subsidies for

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ploughing—all in a last minute attempt to remedy damage that should never have been allowed, since it was ill-advised even from other points of view than the agricultural.

Perhaps less serious in its effects on food supply, but far worse—because more widespread—in its damage to the beauty of the countryside and in its influence on rural life, has been the tendency for town-workers to abandon the towns, where they earn their daily bread, and live in houses built to suit their dubious taste here, there, and everywhere possible far across the countryside. It may seem hard at first sight to wish to deny any one the right to live in the beauty of the country—but *is it the beauty they reach?* Is it not truer to say that, as soon as it comes within their grasp, they destroy much of that very beauty they are seeking—and so filch it from those many other townsfolk who need it no less badly though they may be unable or unwilling to live in it? I would ask the reader to leave these questions unanswered until he has read further in this book. Certainly the towns suffer a grave loss from the absence, except in working hours, of many of their best citizens, whose whole-hearted co-operation and enthusiasm are badly needed if the standard of civic pride is ever to approach the level it held throughout mediæval England and until late in the eighteenth century. And certainly, too, social life in the country suffers from the large admixture of a class who are in it but not of it, whose preoccupations are essentially urban, and whose attitude to the country is romantic rather than realistic.

The third category of country despoliation is perhaps due almost as much to the presence of these town-countrymen as to the periodic influxes of townsfolk and

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suburbanites on pleasure bent, for which it mainly attempts to cater. It includes such things as advertisement signs and hoardings, untidy garages and petrol pumps, tea-shops, and all that range of enterprises which deface the very charms they rely on to attract their customers. I am far from wishing to keep the country unchanged and undeveloped. The claims of the townsfolk in search of recreation must be held second only to the claims of the countrymen and of agriculture. Tea-shops and swimming pools are no less needful than petrol pumps and garages ; but designers and proprietors of these things should realize that there is a town idiom and a country idiom, and that in the country the former is inadmissible. Advertisements of almost every kind might well disappear. If only taste among townsfolk stood at a higher level one might hope that the law of supply and demand would lead to some improvement, since customers from the towns would flock to neighbourhoods where decency had been observed and avoid those where it had been flouted. But unfortunately the appreciation of decency and order, though undoubtedly growing, has still a long way to go before it can have any great effect in speeding up this improvement.

It is needed no less if we are to avoid further spoliation of the type which comes into our last category : necessary works carried out mainly or entirely for the benefit of the country itself, such as road construction or reconstruction, and the erection of council houses and farm buildings. Little remains to be said of this group. These things are needed, and needed urgently. The countryman's attitude towards design itself is essentially realistic—and necessarily so in these days of agricultural depression. Show the farmer a Dutch barn cheaper than the familiar

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construction of corrugated iron and rolled steel joists, and, if it is as serviceable, he will no doubt erect it in preference. As it is, only education, delicately applied, will persuade him to paint his tin erection some more acceptable shade than the usual dried-blood colour. Only education will induce local authorities to achieve decency in the design and siting of cottages which they may have to erect. The general level in this respect is appallingly low. Many towns have reached a fairly high standard of design in their municipal housing, limited as the possibilities appear to be under present conditions ; but in the country things are far otherwise. All over England are charming villages sadly marred on one or more sides by a collection of council houses usually poor in design and almost always badly sited and grouped. It is doubtful whether even the execrated speculative builder is a greater sinner here. In the suburbs, yes, because his restless chaotic designs ruin what slight effect of unity there may be ; but in the country he does as a rule avoid at least the drabness of the average council cottage.

It is no easy thing to decide how this much-needed education in design is to be carried out. Partly, no doubt, by continuing and intensifying the activities of the C.P.R.E., who can do so much by tactful persuasion—though only when they are able to scent out impending changes far enough in advance, which is by no means always the case. The great danger is that the preservation of beauty may come to be regarded as a class issue. Already many local authorities include members of a less cultured sort who have suffered real or imaginary slights, and are therefore ready to adopt an antagonistic attitude whenever any question of æsthetics crops up. To them, beauty is an impractical quality treasured only by snobs.

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They pride themselves on being practical men, far above such foolish considerations. To a certain extent their frame of mind is understandable. Far too many lovers of rural beauty have used the title to justify their opposition to change of almost any kind. The confirmed preservationist, who would keep everything as it is, has no claim to our preference above the tasteless developer. In seeking to thatch a group of petrol pumps or an aeroplane hangar (both excesses of idiocy not unknown in England to-day) he really does a greater disservice to the progress of design than does the latter, since the romantic creation lies farther away from true design than does the blunt graceless erection. The only satisfactory attitude to adopt in regard to rural development is that the country must develop, and should be encouraged to develop (so that the word "preservation" is a dangerous one to use without strict limitations); and that, outside the realms of pure art, beauty is always founded on efficiency, which in its turn proceeds largely from order. Romantic conceptions of the past are no basis for the judgment of beauty created today. This must very usually take a new form, since the needs which it serves and the materials which compose it are new.

There are two principal causes for the comparatively sudden urgency with which the problem of rural despoliation has presented itself. One is the rapid disappearance of the large landowner, under the burden of heavy taxation and death duties. No large estate can now remain solvent through more than two or three changes of owner, unless it is supported by income from soaring urban land values, from mineral rights, or from some external source. Neither agriculture nor forestry can carry it. Sooner or later it must be sold off piecemeal

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if not all at one time. Who is to blame the owner for getting out while the going is as good as it is ever likely to be ? Sometimes the purchaser may be a local authority who may be able to put the park and mansion to some good use ; or these, too, may be submerged beneath a housing estate. Sometimes the bulk of the land may be bought by the existing tenants, sometimes by a firm of speculative builders. Sometimes a syndicate of speculators will get the whole place for a price which they estimate can be handsomely covered by the sale of the timber and anything else removable or easily saleable. This has perhaps the most disastrous effect of all, the land being ravished of its beauty and then sold off in plots to all and sundry. Whatever the process, the final result is likely to be the same : land that has been cherished probably for generations by people with a certain amount of culture, is split up under a multiplicity of owners with an average degree of culture considerably lower. Even if it were as high or higher, the effect on the amenities would still be unhappy, since for the original unity of control, however uninspired, has been substituted the working of a large number of unco-ordinated individual tastes. One cannot regret the passing back of the land into the hands of the British people from whom so much of it was filched at the times of the Inclosures, the Black Death, and throughout history ; but it is deplorable that this restoration should be accompanied by the loss of so much beauty just when the majority are freer to enjoy that beauty than ever before.

The coming of the motor car has meant far more than that most people are now able to get into and out of the country quickly, and that a limited number are free to live in it while doing their daily work in town. The

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railway, of course, made the latter possible to a considerable extent. But the effect of the railway on town-growth, great though it was, is not to be compared with the revolution wrought in both town and country by the motor. The essential difference between the two forms of transport is that whereas the train (and its Victorian extension, the tram) must have fixed rails to move on, the car or motor bus can make use of the smallest roads or lanes and penetrate almost anywhere. The growth of towns in the railway age was roughly in the form of a star, housing being confined mainly to the districts on either sides of the radiating lines of track, tending to decrease in area as it got farther away from the centre, and eventually petering out in discontinuous clusters round the more distant suburban stations. This pattern was broken to a considerable extent near the centre and in the more populous suburbs by a secondary system of tramways ; but on the whole the star shape was retained—and it is by no means a bad shape for a town, since it implies the presence of wedge-shaped regions of unbuilt-on land penetrating towards the centre from several sides. The institution of motor bus services and the cheapening of motor cars did away with the limitations which had resulted in this form of town. There was no longer any reason why the unbuilt-on wedges should not be developed to the full. And developed they were, so that our larger towns increased considerably in size and tended to become roughly circular in form. The larger they grew, the greater became their power of attraction and their consequent need to spread still more rapidly. And now a third change in form appeared. The large towns, once star-shaped, now roughly circular in plan, began to reveal a

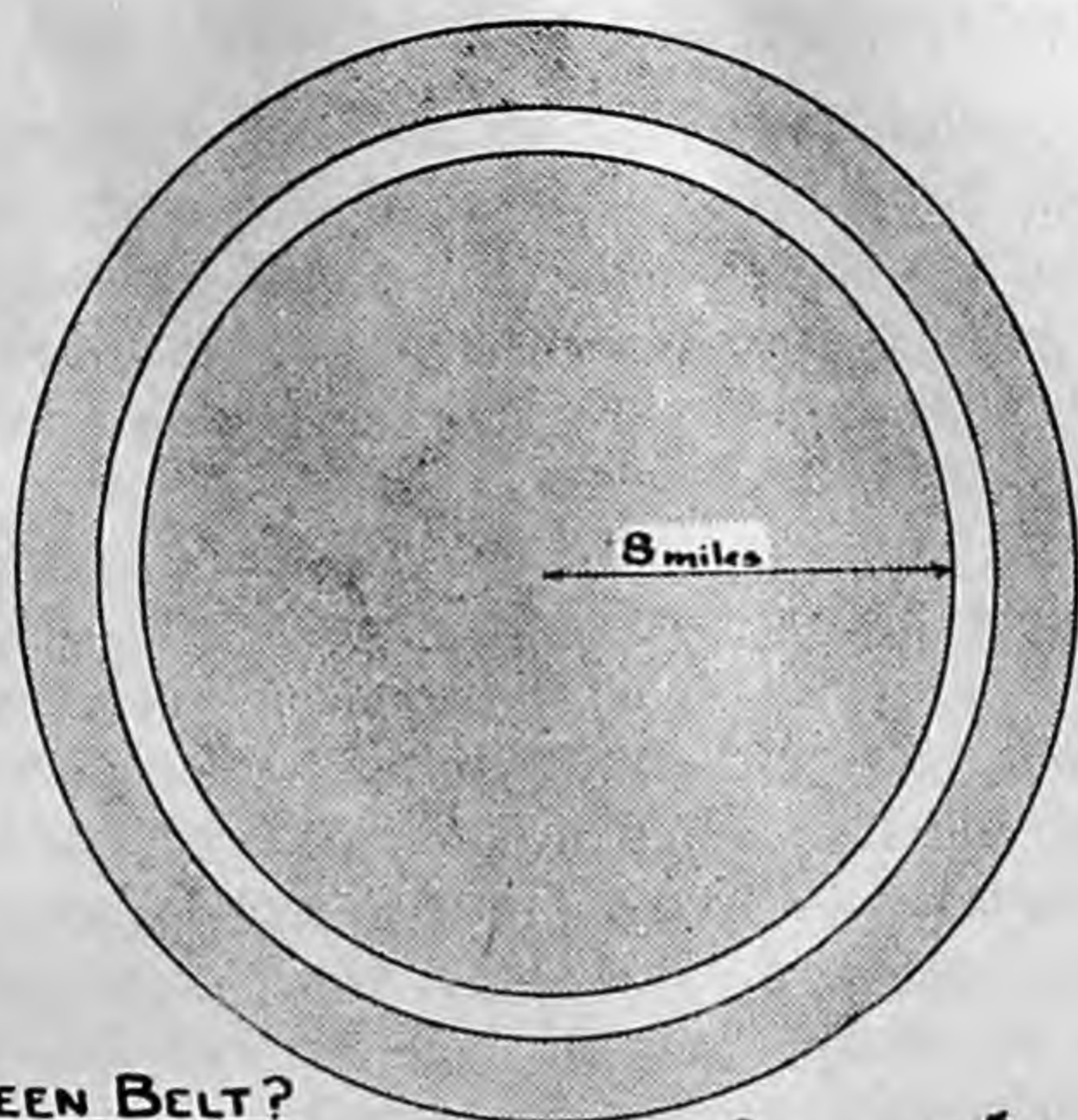
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secondary series of radiating arms. But these new arms of housing (or tentacles would be a better word, since they were so thin) were stretched, not along the railways, but along the roads. Here was the notorious ribbon building, the effect of which has been to make England a motorist's nightmare for many miles outside every large town, firstly by congregating local traffic on main roads which should have been kept free for main-road purposes, and secondly by interposing a thin screen of houses between the roads and the country on either side, thus increasing the apparent size of every town by a hundred per cent. or more, and robbing the road user of the sight of green fields.

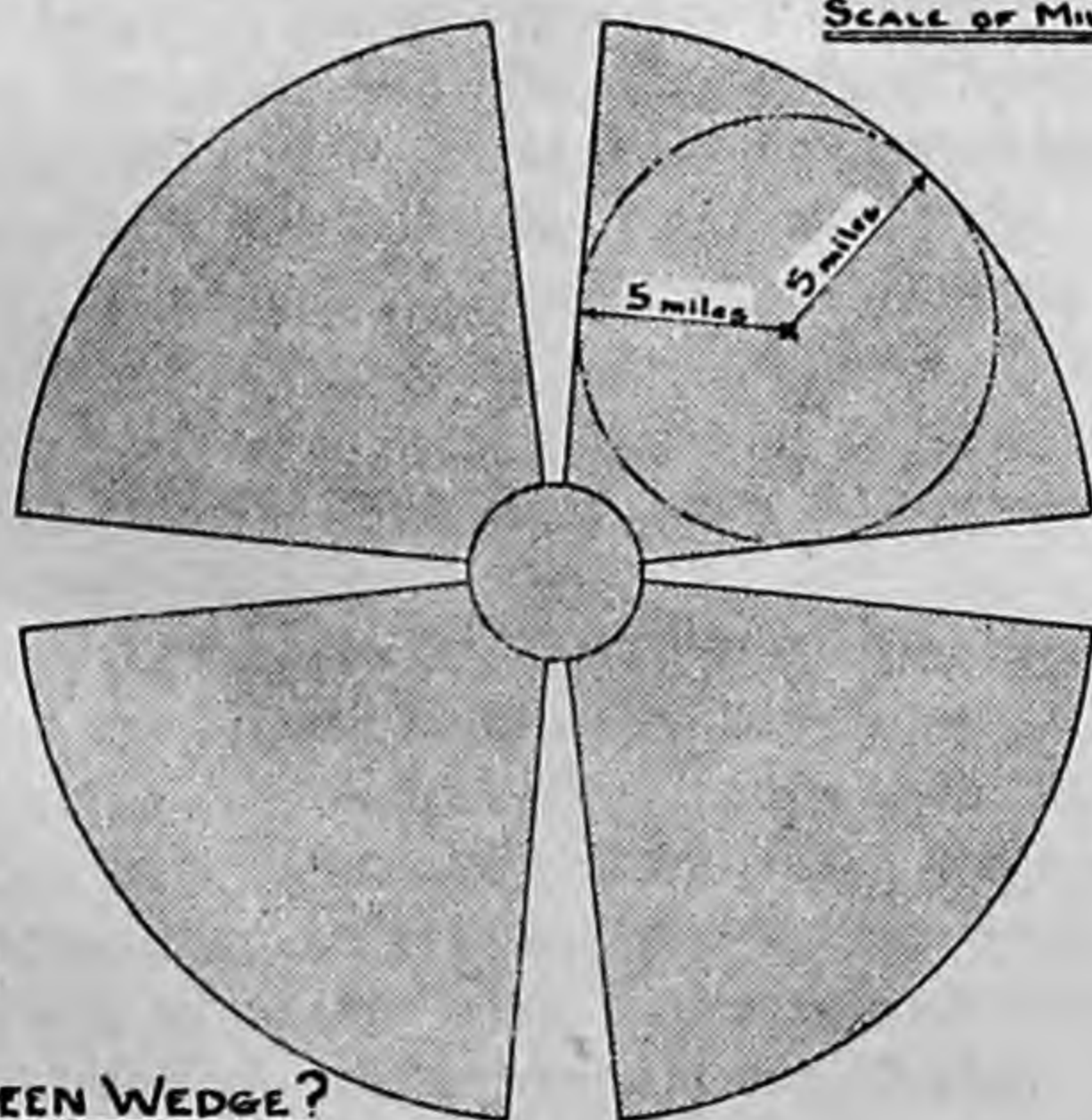
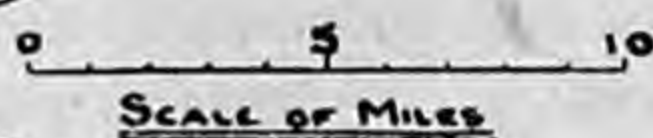
In addition to its influence on the shape of towns, the coming of motor transport has had no less an effect on the extent of their growth—or at least on that of the larger ones. When the railway was the only means of rapid transport for all goods but the lightest, the manufacturer and merchant were generally tied to districts closely served by some line, just as was the case with housing. The fact that, in the very large towns, sites in such districts were both limited and expensive, led to a certain amount of desirable decentralization. This was another restriction which motor transport swept away. Only heavy industries were now tied to the railway, and most of the others were free to seek the manifold

(Fig. 1)

The upper diagram on the opposite page shows the application of a Green Belt of open space to a town approximately the size of London. In the lower diagram, exactly the same acreage is applied—but in the form of Green Wedges. The Belt lies almost 8 miles from the town's most congested area and, furthermore, makes no useful contribution to the road system. With the Wedges, open space is brought within $1\frac{1}{2}$ miles of the central area (where the need is greatest), and lies no more than 5 miles distant from any part of the town. Wedges provide, also, ideal routes for new radial roads.



GREEN BELT?



OR

GREEN WEDGE?

FIG. 1.

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advantages of nearness to the largest towns. Consequently these grew larger still—larger by far than was at all desirable. There arose then a futile cry for “green belts”—futile because in most cases it was raised too late. London’s well-advertised green belt lies over eleven miles away from the centre. The Midland Advisory Council proposed a belt half a mile broad to prevent Birmingham merging entirely with Coventry, a city eighteen miles away—so that the net result would be a green or greenish ribbon stretching through a built-up area about thirty miles across! Futile, too, because a circular belt is the least effective way of bringing fresh air and open country within reach of the inhabitants of a large town. The most effective method, as the figure on page 35 shows, is to preserve or create green wedges driving inwards from the surrounding country as near to the heart of the city as possible. Birmingham, at least, has now seen the truth of this, and is doing everything possible to bring it about, late in the day though it be. A further advantage of the wedge over the belt is that it provides the obvious course to be taken by each of those main radiating roads, free from building and the congestion of local traffic, which are needed so urgently by most big towns.

Here, then, we have most of the reasons for the spoliation of the English countryside, that countryside which modern living conditions have made more necessary to us than ever before, and which rising wage-levels and the cheapening of motor transport have rendered more accessible to almost every class than ever before. It is an England of vast towns and conurbations (or interlocking groups of towns) which are stealing our country from us at the rate of 35,000 acres a year. An England

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spotted almost all over with a rash of semi-urban houses, bungalows, week-end and holiday spots, garages, advertisements, tea-shops, and all the untidy erections made by or for the townsman in the country. An England disfigured by badly designed council houses and cruelly mutilated country lanes. An England of roads "improved" for speeding where speed should not be required, and neglected where speed is essential.

The outcry against all these things has gone up mainly from two classes : the agriculturalists, who are aghast at the damage done to farming, and the beauty-lovers, suspect firstly perhaps because of their class, and secondly (often rightly) for their lack of a realistic acceptance of the needs of the times. The people of England, the masses to whom the ownership of the land is returning, have hardly made their voices heard. Imagination is hardly their strong point, and they have little or no technical knowledge of the possibilities of town-planning. They accept the present because in most ways their lot in it is better than in the past. They can at least get into the country from time to time ; many of them can live in a poor imitation of it. If the country is not what it could be, and if they cannot get to it nearly as easily as they might—how are they to know ? For the most part they have been out of touch with real country for some generations, ever since their forbears were driven into the towns by the economic conditions of the Industrial Revolution. No wonder their treatment of the country leaves something to be desired ! Nevertheless, their attitude towards the future of towns and country—to town and country planning, that is—must be far the most powerful factor towards good or ill. It well deserves a chapter to itself.

TOWN AND COUNTRY

§ 4. *Town and Country*

Only two hundred years ago, England was almost entirely an agricultural country. Nearly a quarter of its inhabitants were independent farmers, owning or renting their land. The remainder almost all depended for their living directly or indirectly on farming or some such product of farming as wool. Agriculture was the fashionable pursuit of nobility and gentry ; land the principal avenue of investment. London's population was something over 550,000, Birmingham's 15,000. Today, over three-quarters of our population are townsfolk ; no less than one-quarter of us live in just thirteen large towns. London's population is over 8,200,000 ; Birmingham tops the million. And farming is the business of only one-fifteenth of our workers. Let us see how our attitude towards town and country has altered in those two hundred years. The real country worker's outlook on his environment is almost invariably realistic. He may appreciate its beauties subconsciously ; but his conscious mind is generally too occupied with practical considerations to pay much attention to æsthetics. I had a good personal illustration of this a short time ago. My present house stands in an exceptionally beautiful position looking out over a winding river across Gloucestershire towards the Malvern Hills. One particularly lovely morning I said to a local odd-job man who comes to help in the garden occasionally, " Isn't it a grand view, that ? " He straightened his back and peered curiously across the sunlit meadows, past the poplars by the water, towards the distant hills and replied, " Well, zur, I can't say as I've rightly noticed 'im before." And he

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hadn't—after working in full view of it for months ! The average countryman regards the country round him much as the mechanic regards the lathe or conveyor-belt—simply as part of the paraphernalia which furnishes him with his living. The Norfolk parson, new to his parish, who praised in his sermon the benevolence of the Creator for mingling the beauty of the poppy with the usefulness of the standing corn soon found that he had dropped a brick. If this is true today, when so much has been written and spoken and taught about the beauty of nature, how much truer must it have been in earlier times when it was far harder to wring a living out of the soil. Until the eighteenth century, indeed, one finds that the common attitude towards the natural beauty of the land was one of considerable suspicion. It was well enough when it had been tamed ; in the wild state it was still disliked, and even feared. In those early days man's chiefest pride was in his towns : they stood as the most advanced points of his progress in the continual struggle against nature. They represented safety and comfort and culture—civilization in fact. This is not to deny that there were those who saw the beauties of nature. We know from Chaucer and many others that there were ; but these were the exceptions. The vast majority of men and women never thought of the countryside as particularly beautiful or desirable. As a matter of fact, before the Inclosures came to divide up the face of the land with little banks and hedgerows, England cannot have been especially attractive in its cultivated regions. Its great open strip fields, treeless and unfenced, must have been not unlike that particularly unattractive part of Northern France which one crosses in the train to Paris or Laon. Its present exceptional beauty we owe very

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largely to the chance that the great reorganization of the Inclosures, which was at its height between 1709 and about 1850, happened to take place at a time when a late manifestation of the Renaissance, and the writings of such men as John Evelyn and Capability Brown, had roused almost every landowner to enthusiasm for the deliberate beautifying of the countryside. It is this circumstance we have to thank for the fact that the hundreds of miles of new fences which were called for, generally took the form of a bank and charming flowering hedge instead of some cheaper, uglier alternative. During those years millions of trees were planted, not haphazard, or even primarily for their timber (though this was often an important consideration), but in order to create a consciously foreseen effect of beauty. Scores of landowners practised or employed the art of the landscape gardener on their estates in order to create artificial vistas similar to those they admired in the pictures of the great painters of the classical landscape school. It is not unimportant to notice that in all this there was no talk of preserving the beauties of nature—they held themselves to be improving vastly on anything that nature unassisted could produce. Though the Renaissance was perhaps primarily due to man's new-found consciousness that he had won the long struggle against nature and was master at last, yet memories of the struggle were still too vivid for him to wax romantic about the heartless jade. It needed the nineteenth-century townsman, with little first-hand knowledge of her, to do that !

In the nineteenth century the balance of population shifted from country to town with a vengeance. England gave up all idea of growing enough food for herself and concentrated on becoming the "Workshop of the

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World", thereby making far more than enough money to buy from other countries all the food she needed—though it is true that the money was not so distributed as to bring this food within reach of all classes. The industrial towns continued to expand at a rate which set new and almost insuperable problems to their designers. We have already noted how factories were strictly tied to sites served by railways—and the presence of adequate water supplies for condensers (and, before steam-engines, for power) was another limiting factor. Transport facilities for workpeople were almost non-existent—and wages too low for them to have been enjoyed even had they been available: for the most part workpeople had to live near their work. These things resulted in appallingly crowded housing, the most horrible towns the world had ever seen. There is no need here to describe the ghastly conditions in which men, women, and children rotted to death: we are concerned with the future. Our interest in those times is in the state of mind which they produced among those who were concerned with the design of towns, and in the type of development that sprang from it.

About the middle of the century a particularly bad epidemic of cholera threatened the safety of all classes and led to a report on the sanitary conditions in towns. Its findings might almost be epitomized in the sentence, "There aren't any!" Local government had been initiated in 1835, however, and henceforward a steady course of improvement was followed. The first attempt to secure healthy towns was made by the enforcement of what is now called by-law housing. Various successive by-laws stipulated that new houses and rooms must be no smaller than certain minimum sizes, and must conform

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to certain standards for structural safety, protection against damp, ventilation, sanitation, and so on. Furthermore, houses might not be built closer together than a certain distance, and the roads between had to be of a certain minimum width, properly made and drained. These by-laws, which were frequently revised, certainly led to considerable improvements so far as conditions of health were concerned ; but as each builder and estate developer continued to work as narrowly as possible within their limits, the result was districts and streets of unutterable drabness and ugliness, such as can still be seen in many of our older suburbs. A quarter of a century later was born, or, more accurately, was popularized, the idea of the Garden City.

It is my belief that though great have been the benefits we have derived from the conception of the garden city, and well-suited as it was to social conditions at the time when it sprang to birth, yet from the misconceptions that have followed it, and from the basically wrong attitude to town and country which it engendered, much of our dissatisfaction with our towns and much of the despoliation of the country have resulted. To take the last point first : the fundamental idea behind garden city ideology is that the existing towns are irremediably bad, that life in them must necessarily be lived at an inferior level to that possible in the country or in the nearest compromise possible—the garden city. The immediate result of this is the growth of a feeling of scorn for the old towns and a corresponding weakening of our determination to make them better. Yet, desirable though new garden cities may be, the improvement of the old towns in which so much money has been sunk, and in which so great a majority of our

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population must continue to live, is even more essential. The garden city ideology appeals to our moral weakness. When given too much importance, as has been the case, it encourages us to turn our backs on the difficult task urgently awaiting us in the old towns, and to play about with little new towns in virgin country. Again, by popularizing the quite new idea that the country is necessarily the best place to live in, it leads to the wholesale despoliation of the countryside which we have noticed. Even if it could be proved that garden-city life is indisputably better and healthier than anything possible in large towns (and I hope to prove the exact opposite before the end of this book), I maintain that it would still be a mistake to spread knowledge of this widely, since so many millions must continue to reside in the latter—and the last thing we want is to encourage a defeatist attitude. Even the finest garden city cannot compare with real unspoilt country. This possesses gifts of physical and mental well-being which it would be ludicrous to expect from a holiday in Letchworth, Welwyn, or Hampstead Garden Suburb. Mankind needs these gifts as a solace to the strain of modern life—and needs them as they have never been needed before. Man needs the genuine country ; agriculture needs the country unhampered by the perpetual threat of building development. To these fundamental needs all others should take second place.

§ 5. *Garden City and Garden Suburb*

There, in the wrong comparison suggested between town and country, we have the first harmful result of



Photo : G. M. Bounphrey.

By-law housing.

by-law

GARDEN CITY AND GARDEN SUBURB

the garden city gospel. The second is one for which the original founders can hardly be held responsible. As laid down by Ebenezer Howard in *To-morrow*, the book which, published in 1898, led to the founding of Letchworth, and exercised an immense influence (which is still very much to be reckoned with) on all planners and architects, an essential feature of the garden city was that it should never be allowed to exceed a certain size. If further growth was necessary, Howard stipulated that this should take the form of a satellite town four or five miles away, separated from its parent by a wide permanent belt of open country. In its final form he envisaged a central city, under no conditions exceeding a population of 58,000, surrounded by six satellites, each of 32,000, set four miles out, and each surrounded permanently by open country. This admirable idea has never materialized. Letchworth, founded in 1901, is still barely half-way towards its maximum. Welwyn Garden City, founded in 1920, not nearly so far. What *has* materialized in tragic abundance round all the big towns is the garden suburb, an unpleasant hermaphroditic form of development, neither city nor garden city, neither town nor country. Having few of the advantages of the true garden city, it has almost all its disadvantages—and under modern conditions even these are not inconsiderable. But the garden city is at least planned as a unity: it is designed as the settlement of a community, and is graced with those amenities which a community requires. It provides within its boundaries factories and other places of employment for its inhabitants, who are thereby enabled to live near their work. It is surrounded by unspoilt country, which is therefore easily accessible to them for recreation. And it has

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invariably a strong civic sense and a flourishing social life of its own. The garden suburb (to which type belongs almost every suburb built since the war) has none of these things. It relies half-heartedly for cultural and recreational amenities on the large town—which completely cuts it off from country on the one side (as neighbouring suburbs probably cut it off on two if not three of the remaining sides), but is yet too distant, as we have seen, to serve it properly. Its inhabitants have long and expensive journeys to and from work ; and both its civic pride and its social life are very generally in a state of arrested development, the first because it has little to be proud of and no traditions to cherish, the second because all its inhabitants come within a narrow belt of income levels : there is no diversity of social status and a consequent lack of leadership.

So much for the peculiar disadvantages of the garden suburb. We have still to consider how well or ill the garden city itself suits the needs of modern life. It must be remembered that when Ebenezer Howard was formulating his theories of proper living there were no motor transport, no cinemas, no greyhound or dirt-track racing, no wireless, and no electric light. There were far fewer working-class clubs, little cheap reading matter, and far fewer people able and wishful to read. The most obvious attractive way for the working-class to spend its evening leisure was in the public houses. This was not conducive to good social conditions. The whole essence of Howard's idea was that by rehousing the working-class man in a garden city, he would be transported into a clean atmosphere and healthy surroundings, away from the temptations of the town—and, instead of wasting his spare time in the gin palace,

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to the detriment of his health, pocket, and home life, he could spend it in the healthy and fascinating pursuit of gardening. A further advantage of this would be that his hobby would supply him and his family cheaply with fresh vegetables and fruit—a valuable consideration in those days when these beneficent but perishable food-stuffs had to suffer transport by train and horse instead of by rapid motor truck, and when the importation of such foods from abroad was nothing like so well organized as it is today. Beyond even this, it was confidently assumed that a surplus would be available for sale as a useful addition to the weekly wage-pocket.

In order to make these desirable results possible, Howard postulated that the greatest density of development which should be allowed was fourteen houses to the acre, including local roads. Later this was changed to twelve. This purely arbitrary figure has taken a most extraordinary and unjustifiable hold on the minds of our town-planners, architects, local authorities, and legislators. For no reason at all except that the phrase “twelve to the acre” is an easy thing to remember in a rather large and complex subject, a fixed idea has grown up that housing at this density gives optimum health conditions, and that anything denser is automatically less healthy and should only be permitted in exceptional circumstances. No such contention can possibly be proved or even reasonably suggested; and gardening facilities (especially with an eye to that surplus), not considerations of health primarily, were the basis on which it was first worked out.

Consider now how far Howard's arguments in favour of garden city rather than town life apply to conditions today. The air in large towns is still less pure than in

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the country ; but it is far purer than it was forty years ago. In any case we should regard its present impurity less as a reason for bolting away than as an incentive to go on with the work of purification—since so many millions must continue to breathe and live in town air. As regards diversion and recreation for the working man's leisure, things have changed indeed. There is a wide variety of pursuits open to him—from listening to the wireless or reading comfortably in his own home to sallying out for exercise in any one of a dozen different ways, or paying for one of the many forms of entertainment available. He will still find few healthier and more useful pursuits than gardening ; but it is by no means every one who is fond of this. Gardening is a hobby of middle age and later, rather than of youth. Moreover, the supply of fruit and vegetables in good condition has been so improved since Howard's day that there is no longer the same need for the working man to grow his own. It is surely more important to keep and even bring back the real country within easy reach of every man, woman, and child who has to live in a town, than to set it yet farther away in order to house those hundreds of thousands of non-gardeners each on their own little plot of unwanted garden. I would not for one moment grudge the keen gardener his suburban garden. I would even increase its size and make it less suburban. But it is time the rights of his fellows, the millions of non-gardeners, were championed, and the sacrifices they are being forced to make for him (though they have not the faintest idea they are making sacrifices) were exposed. If the gardens of an average suburban housing estate are examined it will be found that out of every ten, two or three are neglected, four

or five are laid out so as to require as little gardening as possible, and of the remainder not more than one or two will be showing ~~much~~ in the way of fruit or vegetables. An independent American observer, Catherine Bauer, writes in her book, *Modern Housing* : " One cannot help noticing that the smaller gardens of Holland and Germany are usually much better kept up and more attractive than the larger ones of England." Here is an extract from a letter that came to me from an unknown correspondent as a result of a broadcast debate. " I am a bank clerk, 37, two children (10 and 5), subsidy house (semi-detached) in the suburbs 5 miles out (and comparatively a jolly good one), and a very keen gardener. . . . I agreed with you most whole-heartedly about the comparative rarity of really keen gardeners. The majority of people with gardens are not gardeners—they do the minimum required, and would be delighted if somebody would do that for them and do it much better. Just look at the regular front gardens, mostly grass with a narrow strip of antirrhinums or some such round the edge—and 9 privet hedges out of 10. But, having a garden on the doorstep is not an unmixed blessing—there's always something to be done, and in summer, when the evenings are all light, it is difficult to sit down and do all the reading one wants, with greenfly clamouring and so forth. I fancy if I had a plot (and a large one) at a distance, it would be less of a taskmaster. And the fresh vegetable business—it is their economic position which causes most people to grow their own ; those who can afford to buy them mostly do. I do not know a single house near ours where vegetables are grown—there just isn't room since flowers are so much better to look at. Give people an adequate income

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and they'll buy their vegetables nearly every time." The rest of this letter will be found on page 53. In any case, modern "open development" is by no means the best layout from the gardener's point of view, since the numbers of little detached or semi-detached houses, with narrow alleys between, tend to produce draughts which cut off his plants. I hope to show that it is possible to supply the whole minority of keen gardeners with better gardens—and that without sacrificing more of the countryside.

We see, then, that one of Howard's strongest arguments in favour of garden city life no longer carries the weight it did. We see, too, that the new facility with which all classes can now get out to the country in their leisure time is one of the strongest reasons for leaving them some unspoiled country to get to. If, however, it were quite certain that life in a genuine garden city (free from the peculiar defects of its bastard, the garden suburb) is necessarily far preferable in the eyes of the great majority to life in any sort of town, then we could only declare—in theory at least, "Let us aim at depopulating our old towns and surround them with clusters of new garden cities." This is actually put forward as an ideal by quite a number of ardent reformers. Yet merely to thin out two million or so from London's more than eight millions, would call for the building of forty or fifty new towns round the senile parent-city as well as for the large extension of some ten existing small towns. Anyone who cares for genuine country and knows how much the whole south-eastern quarter of England is already suburbanized, can only view this prospect with dismay. Professor Sir R. G. Stapledon, in his book *The Land*, writes of one

particular Home County, "Between 1921 and 1931 . . . an acreage equivalent to 9.7 per cent. of the area of the county was diverted from agriculture to residential and other uses. At this rate our own grandchildren will witness the end of farming in Surrey." It seems quite clear, however, that garden city life is not the most acceptable form of living we can devise for the majority—though there does undoubtedly exist a minority who are peculiarly suited to it by temperament. For the others it must always suffer from certain defects.

To begin with, the garden city, restricted as it is to a population not exceeding, say, 50,000, can never offer more than a fraction of the purely urban amenities which a city of a million people can give its inhabitants. Theatres, concerts, art galleries, exhibitions, universities, extension classes—all these things and others can be had more richly endowed and in greater variety in the large town. Even more important, perhaps, is the greater possibility of building up a large circle of congenial friends and acquaintances—surely one of the things which make life most worth living. Shopping, too, is cheaper and more varied in the large town. Binding all these benefits together, and enabling one to get the maximum advantage from them, is the greater ease of communication and transport due to the relatively short distances between them. This question of diffusion, indeed, is one of the great disadvantages of open development. It is all very well to live at Letchworth if you can afford to take car or train to London whenever you want to indulge in its wider recreations. If you can't, you must make yourself content with whatever Letchworth can offer. Even within the area of open development, be it garden city or garden suburb,

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all distances are relatively far greater, as we have seen, than in the less diffuse town. One of the greatest reasons for the unpopularity of life in the new suburbs is that the inhabitants, newly moved from towns, miss being able to "pop round the corner" to see friends, to do a bit of shopping, or go to the pictures. For this privilege alone many of them, however misguided, would be ready to go back to their slums. Here I may perhaps quote from another letter. "When my husband and I were first married, we lived in a flat for six years and were thoroughly happy: week-ends we could shut up 'shop' and go walking into the country. We had heaps of interests—evening classes, whist drives, pictures, we could choose innumerosly, and of course friends. I thought it would be beautiful to have a house and garden of our own and to be more *private*. . . . We spent nearly all our capital on the usual deposit for the house, and we needed more furniture as we had only a three-roomed flat and were going into a four-bedroomed house with the usual two rooms on the ground floor [see page 54 *et seq.*, G. M. B.]. We thought it would be a nice house if children ever arrived, which they have not, which I think is a blessing as regards educating them, there is only one school and a second one being built, it would mean sending them to Southend for a technical school, that would mean 2s. a day. Financially we are worse off as our house costs 30s. a week rent and rates and 10s. my husband's fare, which only used to be 1s. 6d., that means £2 a week before we live. Living is much dearer as there are only a few shops here, whereas I could have much more choice in town." Another extract from this letter is given on page 54.

Yet another fetish of the advocates of open development which will not stand close examination is the greater privacy claimed. The space between the fronts of two rows of houses facing each other in twelve to the acre development is usually about twenty-three yards, of which approximately half is public highway. This means that passers-by on the footpaths can look straight into the front windows from a distance of little more than five yards. The only remedies are to cut out much of the light from the rooms by hanging net curtains over the windows, or to do the same, so far as the ground floor is concerned, by growing a hedge six feet high—through which the family conversation can be heard by any one who cares to linger while the windows are open. There is very little more privacy at the back and sides, where neighbouring windows overlook each other at all sorts of angles. There is next to no privacy in the gardens. Here I may, perhaps, quote again from letters received. This is the rest of the bank clerk's letter, already partly quoted on page 49. "As for privacy—its absence is the most outstanding drawback in these (so highly respectable) suburbs. If I start to sing, my wife has to remind me that the neighbours will think we are quarrelling; if we have words, which being naturally spirited beings we inevitably must at times, we are reduced to hissing our anathema maranatha at each other. All the time I am listening to *Tristan*, or the 'Entry of the Gods into Valhalla', I have an uneasy feeling that my neighbours will at last have the courage to ask me to 'stop that fearful din'. And, of course, to sit in the garden and converse intimately is a sheer impossibility. And, except when quite tiny, this idea of children playing there so happily is

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another pious fallacy. They want to get out and find more children—and in the main they get out. You see, listening to Sir——, I felt that he had no first-hand experience of such conditions, and I imagine that Professor ——'s suburban residence would probably have more chance of privacy than we have. And we are *very* comfortably off compared with most working-class people.” And here is the rest of the letter quoted on page 52. “As to privacy, well, I am afraid we are worse off” (than when they lived in a flat—G. M. B.), “for here we can hear the next-door neighbours having a word or two with their husbands, and as to owing a small bill, the baker's boy will be able to furnish one with any accounts, and the woman in the house opposite sees who comes to your door as she peeps behind the curtains. . . . Give me a flat before a house, especially in town; there are not half the worries, and, as you say, all this building of houses it is certainly spoiling the landscape.” We see, then, that “the Englishman's home is his castle” is apparently a fallacy where open development at twelve to the acre is concerned. Later in this book I hope to prove that far greater privacy is possible with other forms of layout. It is a paradoxical shortcoming of open development that while, by reason of its very diffusion, it does much to abolish the pleasant neighbourliness of the town (as of the village), it yet fails to give even the degree of privacy demanded by those who like to be neighbourly.

§ 6. *More Disadvantages of Open Development*

The letter quoted on page 52 touches on another weakness of housing in small detached or semi-detached

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units—the lack of elasticity in accommodation as compared with flats. These are days of rapid changes ; and as people's circumstances change, it is convenient for them to be able to change their dwellings to suit. My correspondent above anticipated a family and moved into a house. The family did not materialize : she was then wrongly housed. Let us suppose she had become the mother of a family of four or five boys and girls. At various stages of their growth there would have been periods when it would have been more economical for them to have shared bedrooms. Later, they would probably have had to be more widely spaced out. As they grew up, various members of the family might have married or have been called by their work to live away from home. These things cannot be foreseen. But whereas a flat is usually rented on a short lease, a house has very often to be bought—or at least taken on a lease in units of seven years. At any moment the tenants may find themselves over-housed through circumstances which could not have been calculated in advance. And furthermore, it is no easy thing to move out of a house in the country or suburbs and into another as suitable which has the new accommodation required. Even if the old house can be disposed of, the new one must be found, and if this means a change of district, very deep roots may have to be torn up. Clearly it would be an immense advantage if there were a large selection of dwellings of various sizes in the same area, with leases easily interchangeable. The trouble and expense of the move would be minimized and the change of habits and environment hardly noticeable.

There is another even more important aspect of this question of accommodation. The minimum size of

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small house which it is reasonably economical to build contains three bedrooms, or two bedrooms and a parlour. To build smaller houses than this is to increase to an uneconomic extent the cost both of erection and of upkeep when compared with the accommodation obtained. As a result of this, practically all the new houses built since the war to meet the needs of re-housing, slum clearance, and the campaign against overcrowding, have been of a three- or four-room type. But this is not the size of house which is most urgently required; consequently the enormous building programme we have put through has not had anything like the effect that might have been expected in reducing the shortage of dwellings. Let me give two examples. The accepted minimum standard of decency (which few will consider too generous) demands that the number of people living in any house shall not divide out as more than one and a half persons per room—counting not only the bedrooms but the parlour. Even this low standard has, of course, not nearly been attained. Now if we take the figures of the 1931 Census for the Administrative County of London, we find that, of the entire population, by this standard 75 per cent. of householders need three rooms or less (50 per cent. need only two rooms); only 20 per cent. need four rooms; and only 5 per cent. dwellings of five rooms or more. But see how ludicrously badly the proportion of houses of various accommodations is adapted to these requirements. Of the badly needed three-room houses the supply available amounts to no more than 13 per cent. of the dwellings in London; the four-room houses, as might be expected, are adequate at 20 per cent.; and the remainder—no less than 67 per cent.—are of five rooms or more. In other words



Photo : G. M. Boumphrey.

Privacy in a garden suburb !

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the supply is inversely proportionate to the demand, a need of 75 per cent. being met by a meagre 13 per cent., and an absurd excess of 67 per cent. catering for the requirements of only 5 per cent. In poor districts this leads to most undesirable social conditions. Another inevitable result of this state of affairs can only be (and is) that a large number of the unwanted big houses are let off in odd rooms—lacking the proper conveniences of a house—to small families who cannot get the accommodation they require. It means, furthermore, that a great proportion (like the writer of the letter on page 52) find it necessary to take a house too large for their needs in order to have a house at all, and are consequently forced to struggle under an unfair burden of rent, rates, and upkeep costs.

In case it may be thought that the state of affairs in London is exceptional, I will quote the position in a midland town of something under 150,000 people. In 1901 the average number of persons per house was 4.62, and there was a surplus of 1,652 empty houses. In 1911 it was 4.34, and there were 1,406 empty houses. There was little or no overcrowding. In 1921, after the interruption in building caused by the war, the average was still only 4.55 ; but there was an enormous demand for new houses. In the next ten years 6,300 houses were built, which reduced the average figures of persons per house to 4.00—far lower than it had been at the beginning of the century. But the extraordinary thing is that there was still a great shortage of houses and an unprecedented amount of overcrowding (though the accepted standard for this and the methods of finding it out remained the same). The reasons for this were not very difficult to find. To begin with, the 6,300 new

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houses, which at the average figure might have been expected to accommodate 25,200 persons (or, at the "minimum decency" standard of 1.5 persons per room, almost half as much again) in actual fact only gave shelter to 12,606. Again, out of 1,200 houses scheduled for demolition, it was found that 177 were occupied by only one person, 281 by two, 127 by a married couple and one child, and 95 by a man, woman and two children. Clearly, to house these 680 families (out of 1,200) in four-room houses was going to involve a great waste of rooms. Consideration of this led to a sample investigation of a number of streets, and it was found that out of 1,094 houses, no less than 413 were by no means fully occupied, no less than 610 bedrooms being wasted. The reason for this great demand for small houses is to be found in the striking decrease in the size of the average family to-day. According to the Census and all the available figures this tendency towards smaller family units will continue, and even accelerate.

I am by no means of the opinion that the spare bedroom is a luxury that should be reserved exclusively for the richer classes ; but the point I would make here is that, as a result of the more or less necessary concentration on four-room houses which has been the general policy of rebuilding since the war, many families are being compelled to live in houses too big for their needs and their incomes, and at the same time many people are unable to find any houses suitable to their circumstances. Clearly what is wanted is a great increase in the number of one-, two- and three-roomed dwellings. The Council for Research on Housing Construction, in their 1934 Report, "Slum Clearance and Rehousing" (which I shall refer to hereafter as the Dudley Report, from the name of

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the chairman, Lord Dudley), made a careful estimate of the relative number of various sized dwellings likely to be required in the immediate future, and gave these as their estimate : one-room, 5 per cent. ; two-room, 10-15 per cent. ; three-room, 50 per cent. ; four-room, 25-30 per cent. ; and five-room, 5 per cent. These figures take into consideration the desirability of not counting the parlour when reckoning overcrowding—clearly an ideal to be aimed at when the worst of the present congestion has been overcome. And yet, even so, between 65 and 80 per cent. of the demand is for three rooms or less. But these are just the sizes which are uneconomic to build in the form of cottages, costly to maintain, and even more wildly wasteful of land-space than the usual type. This is the shortage that should be met before the problem of spare rooms is tackled. In any case, this last can be satisfactorily settled in multiple buildings without the need for every family to bear the expense of keeping one constantly on hand.

I have pointed out many of the disadvantages of the open development type of planning, whether in garden city or in garden suburb ; let us now consider the question of the actual running of the small house which forms its unit. Does it give the housewife the pleasantest life, and does it make the smallest possible demands on the wage-earner's pocket for its upkeep ? Here it is necessary to be able to make definite comparisons with some alternative form of dwelling. For this purpose I take the flat—though I hasten to add that the type of flat I am thinking of is, in its layout and surroundings, utterly different from anything that can be seen in England today. To begin with, the owner of a small house is responsible for the upkeep of a roof and either three or four walls—

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according to whether it is detached or semi-detached. Not only will these require maintenance, but they represent areas through which a proportion of the heat of the dwelling escapes—heat which for six months of the year has to be replaced at the expense of the tenant's fuel bill. The flat has two walls, and may be considered to include on an average only a very small proportion of the roof and end walls. By its more rational design and construction the upkeep of those is proportionately far less than that of the little house that stands alone. (Heat loss is one of the factors already referred to as making the very small house, of less than four rooms, an uneconomic proposition.) The heat loss from a flat is greatly reduced, since instead of open air on three or four sides of it and above it, other flats insulate it on some of these quarters, at least, and may contribute heat from below. Further than this even, heating can be far more economically provided from one large central source, serving a large number of dwellings, than from a multitude of small boilers, fires, or heaters in individual houses. The relative cost of supplying hot water can be taken as giving a good illustration of this last point. To provide the average small house with hot water, a weekly expenditure of at least 2s. 6d. is required. Its provision communally saves at least 1s. 6d. of this ; and if advantage is taken of various automatic rationing systems which prevent the careful household being penalized by the extravagance of the wasteful ones, this saving can be greater. Again, in the small house the presence of staircases, landings, and passages not found in good flat design leads to increased expense in the provision and upkeep of carpets and other furnishing, and in the work required in cleaning. It can safely be said that

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in a well-planned modern flat the housewife's work is reduced by at least one-third, as compared with that in a small house of the same accommodation. Here I would ask the reader to keep back the many objections to flat life which are no doubt crowding to his mind, until he has reached that part of this book which deals with the sort of development to be recommended.

There remains one other disadvantage which the housewife in the garden city or garden suburb has to endure—the difficulty of getting domestic help. It becomes increasingly obvious that young girls are no longer willing to hire their whole lives out to their mistresses except for an odd afternoon and evening a week. They compare their lot with that of their sisters in factories or offices who can live in their own homes, be what they like, and do what they like except during their short working hours. Even there they can enjoy the comradeship of their own kind. The domestic servant, on the other hand, unless she is in a household with a large staff (and these are becoming rarer), may be denied all companionship or reduced to that of one or two other maids whose company may or may not be congenial. All day and all night, unless it be her time “off,” she is subject to rules, and at the beck and call of her employer and the family. Her workplace is her home. Far more than the material disadvantages (and there are, on the contrary, many material advantages in being a member of a well-run household, even a paid member) is the stigma which, rightly or wrongly, is felt to be attached to domestic service. No doubt if a girl about to commence work could be sure of entering service under favourable conditions—and could visualize the benefits this would give her—any possible social reproach would

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be more than outweighed. But she is rarely in a position to do this, and no one can blame her for following the more obvious attractions of commercial or industrial life with its free evenings and opportunities for recreation. In districts where evening amusements are limited and hard of access it becomes increasingly difficult to get and keep maids. In towns, where rival forms of employment accentuate the competition already stern enough, since the demand largely exceeds the supply, the position is even worse. There seems no hope of a solution along present lines—rather does it seem likely that the position will become even more acute. Apart from the inconvenience caused, there is reason to regret this on sociological grounds, since domestic service under good conditions is the best training that a young girl can have for the responsibilities of marriage and housekeeping.

Two remedies for this state of affairs seem indicated—and neither of them can be applied with any thoroughness in a district where housing at twelve-to-the-acre is the rule. The first and more superficial one is to increase the attractiveness of the maid's spare time by offering her a greater number and wider choice of amusements. After all, sitting on a gate with the baker's boy is not every girl's idea of a giddy evening! But as we have seen, it is just in the provision of a wide range of easily reached amenities that the garden city or garden suburb is lacking when compared with the town. The second remedy lies in the engagement of domestic help on the same terms which are given in office or factory—a working day of so many hours, and, outside those, no bonds at all. Such an arrangement to cover, say, from 7 a.m. to 10 p.m. in two shifts is quite impossible to work on any large scale with small separate houses. In

the case of a block containing a large number of dwellings nothing is easier. The tenants can enjoy the services of an adequate staff during all working hours—and this at a lower cost than would be the case with private, permanently resident domestics with comparable duties. The staff can enjoy the advantages of far freer lives, knowing exactly which hours of which days are their employers' and which their own.

§ 7. *The Æsthetics of Open Development*

I have left until last in my consideration of the drawbacks to garden city and garden suburb under modern conditions, the large question of taste and the appreciation of beauty. We have seen that it is only within comparatively recent years that there has been any widespread love of rural beauty—at any rate among townsfolk, who were wont to think the country both ugly and dull compared with the graces of the town. The turn of the tide began with the artificial shaping of landscapes in the eighteenth century; but it should be noticed that even then there was little enthusiasm for nature untamed. Let this quotation from the *London Magazine* of 1778 help the point: "Few are perhaps acquainted with that dreary part of Westmorland which borders Yorkshire. Indeed its forbidding aspect, composed of lofty mountains, whose craggy summits seem formed of rocks thrown together by the hand of discord, and frightful deserts laid waste by the piercing storms of the north, tend to extinguish curiosity and prevent travellers from seeking the recesses of a country which promises only labour and fatigue. The roads or rather paths between

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the mountains that lead into those sequestered retreats are often frightful beyond description. . . ." Today, no doubt, that district is a well-known beauty spot, speckled in spring and summer with the bivouacs of hikers or the trailer caravans of their richer brethren—and rightly so. We can probably ascribe the beginning of a wider love of nature to the wonderful success which crowned the efforts of the eighteenth-century landscape gardeners. The England we all love, which is unrivalled in its own particular beauty by any country in the world—is their creation. We who were alive at the end of the last century saw it at its best, better far than it ever was in the eyes of those who laboured that we might see it, better—God knows!—than it is likely to be again for many a score of years. But the pains taken by the eighteenth century to cultivate the beauties of the countryside did not mean that the development of the towns was being neglected. On the contrary, it was just this very period which saw the greatest advances in the art of town planning since the coming of the Romans. It is important for us to examine these here, since they were based on principles which we have come close to neglecting entirely.

Throughout mediæval times the growth of towns was a very gradual affair. No sudden change in industry caused large migrations from any one district to another. As new buildings were needed, either to house a gradually increasing population or to replace old structures, they were designed and built one by one. It was a leisurely process which allowed space for thought to be exercised in design, and trouble to be taken in execution. We should be foolish to put on the rose-coloured spectacles of the tourist and insist that every-

thing mediæval, mellowed as it is by the passing of centuries, is beautiful. But certainly the old master-builders (for the architect did not exist) achieved an astonishingly high level of design. As Sir Raymond Unwin writes in his *Town Planning in Practice*, "... wherever one finds a street dating from before what one may call the modern period, one is almost sure to see something pleasing and beautiful in its effect. The result, no doubt, is due to a greater degree of beauty in the individual buildings ; many of these, in fact most of them, were quite simple and unadorned, yet there seems to have been such an all-pervading instinct or tradition guiding the builders in past times, that most of what they did contained elements of beauty." What, we may ask, has happened to this instinct or tradition today ? That is one of the things I am about to try and discover presently. For the moment let us get back to the eighteenth century. In spite of its preoccupation with beauty, this period also coincided with the beginning of the Industrial Age and the rise of a new prosperity in Great Britain. Towns began to expand at what was then an unprecedented speed. In particular, it became possible to plan whole new districts or at least streets at one time, as had rarely been the case before. The eighteenth century was quite up to the task. Far the most important contribution to town planning made by the Renaissance was its discovery of the street as a unit of design. Rediscovery after many centuries of neglect would perhaps be a more accurate phrase, since the Romans, in particular, had been well aware of it on occasions—and much of the cultural food of the Renaissance was derived from a study of the classical civilizations of Greece and Rome. So now, in designing its

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new quarters, the eighteenth century abandoned the point of view of the mediæval builder and realized that in town development the appearance of the individual house must take second place to the appearance of the street as a whole. Large parts of such towns as Bath, Cheltenham, Buxton, and Edinburgh, and considerable areas of London, such as Bloomsbury, were developed on these lines. The result, as an expression of civilized urban design, was incomparable. It may be argued that the planning of the individual houses and, in particular, their backs, invisible to passers by, suffered in comparison with the attention given to the fronts ; but it should be remembered that at that time hygiene and sanitation were taken little into account, nor were the conditions in which the servants lived and worked treated as of any importance. What the designers attempted to do, they achieved to an extent unparalleled since the first quarter of the nineteenth century. Most of their work in the towns cited above still stands as proof of their eminence in the art of town design—an art which with us to-day is at a very low ebb.

So much to the credit of the Renaissance ; there remains something to be argued in its disfavour. I think there is little doubt that much of the blame for the loss of that “instinct or tradition guiding the builders in past times, that most of what they did contained elements of beauty,” must be laid at its door. Before the Renaissance, English building was English building, instinct in the bones of the men that made it and of those that saw and appreciated it. Through the slow centuries it had developed gradually, changing but little, and then only when each step had been carefully weighed and tested. It was part of the poor man’s heritage as

well as of the rich. Upon this solid structure of tradition was suddenly foisted a multitude of foreign ideas and fashions. The master builder who expressed in his work the knowledge that was in his blood, handed down through generations before him, was supplanted by the architect, a man trained in the niceties of classical culture so far as they affected his profession. The young aristocrat made the Grand Tour to complete his education, and came back determined to rebuild or at least reface his ancestral home in the classical manner. To the common people all this new building was unintelligible. It was not based on common sense, as their own building had been: it was rather a question of fashions beyond their ken. In its attention to façade rather than structure it even flouted common sense on occasion. But the building trades could not afford to neglect fashion and see much of their work taken from them by imported foreign workmen. At all costs they must keep in the running by aping what they could not understand.

England had taken up foreign ideas before (though never to the same extent), and in due course assimilated them into her own idiom. For a time it looked as though the same thing had happened again. Men like Wren, Inigo Jones, and the Adam brothers produced masterpieces in the new manner. All over England new buildings of all sizes in the styles of Queen Anne or Village Classic began to show a new grace and beauty. But other influences were at work, and were to prove too strong. Before the new idiom had had time to establish itself firmly and become part of English vernacular design, of tradition, the whole country had been plunged into a spate of new building activity such as it

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had never known. The towns were running away with the town-planners ; and a new lust for money made in manufacturing and trading was swamping the old leisurely appreciation of beauty. The stream of English traditional design dwindled and died away. To run up the factories and house the workers near them somehow—anyhow—was all that mattered ; and soon dwellings, gas works, railways, and workshops were huddled in unplanned confusion.

The social results of this we have glimpsed ; the æsthetic consequences that followed their remedying were no less disastrous. Of the Public Health Act of 1875, Professor S. D. Ashead writes that it “ made British towns the most hygienic in the world . . . at the same time . . . from the æsthetic point of view—or what may be described as in the interest of moral hygiene—it has been absolutely destructive of every thing that is good.” Reaction against the hideousness of by-law housing was bound to come. Unfortunately it took the wrong form. The lessons of eighteenth-century town-design were ignored and, instead, we were treated to a romantic “ back to the country village ” revival in the rise of garden city ideology. Confined to genuine garden cities this would have been well enough, but applied as it has been to town, country, and suburb alike, it has been the cause of most of the ugliness and despoliation described in this book. Worst of all, perhaps, instead of leading the masses back to an appreciation of the true principles of design and planning—those principles which were blotted out of their minds by the Renaissance and the turmoil of the Industrial Revolution—it has held up for their admiration the will-o'-the-wisp of rustic bliss, a goal that, as we have

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seen, must for ever evade their grasp. In its direct contradiction of true principles of town design, no less than for its seduction of our attention from them, the garden city ideal must be held directly responsible for the bulk of bad planning and building that abounds. We can see this contradiction stated flatly in Howard's book *To-morrow*. "Noticing the very varied architecture and design which the houses display," he writes of his dream city, "we learn that . . . though proper sanitary arrangements are strictly enforced, the fullest measure of individual taste and preference is encouraged." The result of this doctrine can be seen in almost any of the works of the speculative builder which deface our landscape today, in town and suburb as well as in the country.

§ 8. *The Reawakening of Popular Taste*

In describing the state of our surroundings at the present day and in tracing the stages through which they have become what they are, it has been impossible for me up to now to avoid the rôle of the almost wholly destructive critic—if town and country were mainly satisfactory, there would be little need for this book. From this page onwards, however, I promise to be severely constructive. Clearly the first problem to be tackled must be the reawakening of popular taste. It should be noticed that the most generally satisfactory period in English building from the æsthetic point of view was in mediæval times, when the general principles of right building were clearly understood by all classes. Fashions and fetishes counted for little—what did matter was that the best possible job should be made of the

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work. To ensure this, every substance, new and old, and every variation of design and technique which seemed to promise improvement, were eagerly seized upon. There was no talk of "local materials." On the contrary, the more ambitious the building, the greater was the trouble taken to bring in the most suitable materials from anywhere that was not absolutely barred by the limited transport facilities of the times. Styles and fashions persisted only so long as those circumstances endured which had brought them about. Change was not shunned, as it so often is now, but was welcomed for the possibilities of improvement it held. The spirit of the builders of those times, and of the masses also, was receptive and eager. Yet, as we have seen, "most of what they did contained elements of beauty," and, seeing that the principles followed were based wholly on consideration of efficiency, we have no reason to doubt that, according to the needs and customs of those times, most of their building fulfilled all practical requirements as well as the limitations of material and of methods of working allowed. Today we must admit not only that most of what we do contains little or no beauty, but that in following false æsthetic ideals we are losing enormously in efficiency and comfort also. It seems evident that we shall not find a new golden age of design until there is again widespread through all classes a thorough appreciation of the principles of good design, re-stated in terms of modern conditions, methods, and materials. It is even more necessary today than ever before for the masses to share in this renaissance, because, for the first time in history, control of the country is passing into their hands. Woolworth's and Marks & Spencer are of far

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greater sociological importance than Bond Street. In any case, architecture has never been an art like painting which can be largely swayed by a relatively small body of patrons : it is an expression of the taste of the people as a whole, a true index to social conditions.

It is no longer possible, even if it were desirable, for the popular taste to be led by a cultured few. We have seen the harmful results of that in the Renaissance. The power of the masses is rising—at least so far as it controls the development of our physical surroundings. And in any case there is a lack of knowledge and certainty among yesterday's leaders of fashions in building. They have failed to keep in touch with modern conditions and to appreciate the needs and potentialities of the day. They are inclined to look to the past for their inspiration, to try and keep things unchanged. The masses will have little of this, and presently they will have none of it. Their today is far brighter than their yesterday ; they look forward to a tomorrow brighter still. For all their present lack of knowledge and certainty they are more vital, there is more health in them. They want progress, not preservation. It remains to show how they can be given the knowledge that will lead to judgment and taste—or, rather, how they can be encouraged to find it for themselves.

The first essential is that they shall want to find it ; and this desire is only likely to be born if they realize that the find will be worth making. Clearly what we have to provide is some driving force, some inspiration to urge them on. It is worse than useless to fall back on restriction, as our tendency has been, to say, " You must not do this or that." Restriction merely damps down initiative ; what we want is something to encourage it,

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even if the direction it takes at first is not all that could be desired. Beyond all that, what attention can we expect the masses to give to our vetoes, based as these are on dead cultures and dead or dying fashions? No, what we must provide is something that will first arouse their interest and then fire their enthusiasm. They are keenly interested, even now, in anything that is new. For instance, they will freely discuss the design of some new car—though instead of making use of the suspect word “beauty,” with its doubtful associations, they will say that this or that is “good-looking.” Movement and experiment catch and hold their attention as they would those of a child. Here is our chance. In the frank use of new materials, new processes, and new methods of planning there lies the near possibility of greater improvements in living conditions for all classes than have been brought by the last two thousand years. We can only realize these by setting to work with the boldness and single-minded purpose of the old master-builders. It is useless for us to ape their work and continue to employ their tools, methods, and materials when better alternatives are at hand—the results of that can be seen only too clearly on all sides. We cannot even hope to approach their refinement for the present. They lived in a world which changed slowly; ours changes with ever-increasing speed. The new possibilities which face us must be exploited honestly and simply before we can hope to achieve subtlety.

In modern building there is scope for an almost unlimited amount of experiment—not wild experiment the outcome of which may be dubious, but the sober calculations of realistic experts, which have not yet been given form. In the summing up of the results of these,

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the masses and the cultured minority will stand on equal ground. It may even be that the former will have the advantage, since their judgment will tend to be less affected by preconceived ideas of what is and what is not good design. In any case their interest will be caught. Once they realize that the old snob culture is dead they will rapidly gain in self-reliance and taste. The process has started already. I myself built a "modern" house in the country. By far the quickest appreciation of its good points came from the so-called "uncultured" classes: the others were at first inclined to recoil from its unfamiliar features, though in almost every case they have reconsidered their opinions since.

Here then is the clue we need. Let us say to the people of England, "We can give you wonderful homes in wonderful towns"—with these the second and third parts of this book will deal at some length—"we can give you comfort, convenience, and even luxury almost beyond your imagination—and at a less cost than you pay for your present makeshift way of living. And we can save you real unspoilt country close at hand for your recreation." Will that be without effect? Has the impractical idea of life for all in a mock Arcadia sunk in too deep, after scarcely fifty years, for us to be able to root it out in favour of our centuries-old pride in towns? I think not. "Variety is the spice of life" may be a hackneyed and almost unheeded saying; but it remains true that the secret of enjoyment is contrast. In town and country we have two perfect antitheses, both of which we are for the first time in history able to enjoy to the full, thanks to modern transport. Is this the moment to destroy both by merging them into a universal suburbia? Never before

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has town life held out a fraction of the benefits we might enjoy today. Never before has so great a proportion of the people been conditioned by their social habits, their needs, and their wishes to get the very best out of town life. Once we can disclose to them—and make them realize—the possibilities that lie so close ahead, is there any doubt that they will accept them eagerly and flock back to the new green cities as gratefully as they flocked out of the old black towns? It has been said that the Englishman doesn't like flat life—and there is every reason for him to dislike life in the tenements he has mostly seen, put up solely to crowd more people into an area already over-housed. But if this dislike is really a national characteristic, how does it happen that in London and many of our big cities ever-increasing numbers of the wealthier classes, the very people who can afford to choose where they live, are flocking into flats—and flats with but few of the advantages of those that I shall describe? The Englishman did not like exchanging his country cot for the slums of the nineteenth century; but he did it. He does not like the expense and discomfort of suburban life; but he endures them. We are creatures of utterly artificial habits. We live wherever we find it possible to gratify the greatest number of our tastes at a price we can afford. There is no biological or racial ground whatever for arguing that this or that form of habitation is more natural. Give a man clean air and green spaces, greater leisure, and a reduced drain on his income—and he will hasten to take advantage of them. If at the same time we can preserve for his recreation the country unspoilt within easy reach, both he and those whose business it is to live there will have yet more cause for satisfaction.

PART II

THINGS AS THEY COULD BE

§ I. *Treasure up the Land*

It is always very easy to find fault with things as they are. It is not so easy, as a rule, to lay down a practical course of improvement which shall not risk the creation of fresh drawbacks worse than those it is hoped to cure. But in attempting to sketch out a plan of the ideal town we are on fairly safe ground. The difficulty lies far less in the design than in its execution. One can say with relative certainty that a town built on such-and-such lines is well within our powers of technical achievement, that it would have such-and-such advantages over any existing town, and such-and-such disadvantages. But if one is asked how it is to be brought into being, then the sure ground of knowledge has to be deserted for the airy uncertainty of surmise. We are no longer dealing with the concrete realities of building or the exactness of mathematical calculations, but with the whimsies and changeableness of men's minds. The reactions of politicians and financiers must be gauged in advance no less than the unpredictable swing of public opinion under the influence of various propaganda. It is all mere guesswork in fact. But certainly the propaganda must

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come first. And so for the moment I shall pay no attention to the legal, social, and financial difficulties that lie in the way, but shall assume until later in the book that they have all been swept aside—as they can be by the power of a resolute and informed public opinion.

Granted this convenient *fait accompli*, then, how can we ensure a better town and country tomorrow than today? The main solution to the problem, I am convinced, lies in the towns. “The only way to save the country is by making the towns fit to live in.” Those who have followed me so far will realize that what I am about to recommend is a drastic reduction in the size of the towns, which must entail an increase in their density. The phrase “increase in density” conjures up an unpleasant picture, because we already think of our towns as overcrowded. What hope for improvement, then, can there be in crowding them still more closely? Let me make it clear from the very beginning that I am proposing no reduction in this or any other healthy amenity of life, but rather a considerable extension of them all. I have no intention of recommending the replacement of low buildings by skyscrapers, as in New York, so that the streets and open places become quite inadequate for the inhabitants of the buildings. The condensation we need can be achieved very largely through planning. It will give us, not less, but more effective open space per inhabitant. The word “effective” is important. Open space must be judged not only by its extent, but by the form in which it is made available to us. Within wide limits the larger the units in which it stands, the more useful it is. To take an example reduced to absurdity, one might

TREASURE UP THE LAND

have an open space only one-hundredth of which was built-up, and yet it might be useless for even pedestrian traffic or recreation if the "building" took the form of one-inch-square posts set only nine inches apart! Our towns and suburbs suffer very considerably from this form of overcrowding. The multiplicity of small buildings set not very far apart has the effect of chopping up the available open space into a multiplicity of small pieces, none of them big enough to be of any great value, and giving, in the aggregate, a feeling of congestion. This is a loss of "effective" open space. But this form of development entails a waste of actual open space as well. Access has to be provided to both front and rear of all these little buildings—and much of it is individual access, serving only one household. Even in development of the garden suburb type it has been found possible to economise in the amount of space usurped by roads and sidewalks. Picture a typical by-law district, with the houses set in long rows, thirty to the acre, facing each other across narrow roads and their backs separated only by small backyards. At first sight it would seem that no layout could be more compact—not to say crowded. And yet Sir Raymond Unwin has shown in a pamphlet, "Nothing gained by Overcrowding," that it is just as economical from the profit point of view to reduce the density to 12.4 houses per acre—the compensating saving being due to a reduction in road costs resulting from the better arrangement made possible by the lesser number of houses. But his layout does not touch the comparative waste of open space in the many small paths from road to front and back door, much of which takes the form of draughty alleys; and even his economy in road area

TOWN AND COUNTRY TOMORROW

can be very much improved upon by yet newer types of development.

But far the most potent reason for the congested state of our towns—especially in their older, more central areas—is the complete lack of planning, the muddled way in which they have been allowed to develop. Tumble a box of dominoes haphazard out on a table top and look at the chaotic heap that results. It might seem impossible to any one who had not seen it done that so great an apparent volume could be packed back into the little space of the box. Yet, restore a little order—and the impossible is easily achieved. In the same way, a glance at a large-scale map or aerial photograph of the older part of almost any of our towns will disclose a multitude of odd angles and crannies, yards that are not used and alleys that are not needed—the left-overs and join-ups of various unco-ordinated pieces of development. Taken together, these represent an enormous waste of open space. By the mere rearrangement of the existing buildings, if such a thing were possible, a great saving of land would be effected. We cannot rearrange the existing buildings; but we can make sure that, when they have to be replaced, they shall be replaced by something which employs all the ground area to good advantage.

We see, then, that a great deal of the lack of space in our towns is more apparent than real: the space is there, but in such small bits and pieces as to be unnoticeable and certainly unusable. We see, too, that an unnecessarily large proportion of the ground unbuilt-on has to be devoted to access roads and paths. Proper planning, the substitution of order for muddle, would give us an almost unbelievable amount of effective open

space along both these lines. But there remains yet a third way of reducing the built-up area—by building higher. In a town, the ground floor of any dwelling-house must always suffer from the gaze of the passer-by—or, hardly less, from whatever means of protection against it may be adopted. The device, largely employed in the eighteenth and nineteenth century, of building a semi-basement and so raising the ground floor above eye-level is not suited to modern domestic conditions ; and, besides, the ground floor is now of particular value for shop display and for such things as garages, cycle sheds, and pram sheds. Two-storey buildings are clearly no longer practicable, even if the value of land in most towns did not already make the erection of higher buildings necessary for economic reasons. My own view, and that of most social workers, is that all dwellings more than three storeys high should be provided with lifts, if only for the benefit of invalids, small children, pregnant women, and elderly people. But if lifts must be installed in any case (and I shall show presently that their cost can be more than balanced by economies in various directions), the first great objection to building upwards is removed. And since everything seems to be combining to force higher building upon us, at least in central areas, surely our best course is to examine the whole question thoroughly, with this taken as granted, and see to what height we had best build, what advantages are to be gained, and what disadvantages will have to be endured from such a form of development.

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§ 2. *Height Zoning and Light Zoning*

Town-planning legislation gives local authorities power to limit the height of all new buildings in their districts. This is known as "Height Zoning," and is usually applied in two ways: firstly, by a top limit of height which may only be exceeded (as it may also be reduced) in special cases; and secondly, by a limitation of height in relation to the width of the adjacent streets. The purpose of this very necessary control is to keep the amount of overshadowing within definite limits, and, in a small degree, to prevent the blocking of vistas. The London County Council, for instance, divides its area into three zones, according to the type of building predominating: business and industrial; mostly multiple dwellings; and mostly single dwelling-houses. In the first of these, 60 feet is the limit of height for single dwellings, 80 for other residential buildings, and 100 for commercial and industrial buildings. In the second the figures are 40, 60, and 80 feet respectively; and in the third 40, 40, and 60. The ratios of height to distance from opposite side of street are: in the business and industrial zone, $1\frac{1}{2}$ to 1; in the multiple dwelling zone, $1\frac{1}{4}$ to 1; and in the single dwelling zone, 1 to 1. These ratios can be much more easily thought of as angles, and may be called Angles of Light Interference. Treated in this way the figures for London are 56 degrees, 51 degrees, and 45 degrees. Needless to say, the actual angles to be found in most central parts of London and of all our towns are nothing like so good as these. But are even these good enough? I think not. For the seven months of the year from 1st September



Photo: G. M. Boumphrey.

Czechoslovakian housing at Brno.

HEIGHT ZONING AND LIGHT ZONING

to 31st March the maximum height above the horizon which the sun reaches at noon each day does not exceed 39 degrees in London. In December the figure is only 15 degrees. Towns farther north fare even worse. If direct sunlight is as necessary to health as we believe, even the ideal aimed at by the London County Council is not nearly high enough—and the existing state of this and of most of our towns is little short of tragic.

Let us try and establish a worthy ideal and then see how nearly other considerations allow us to work to it. In its bulletin on "The Penetration of Daylight and Sunlight into Buildings," the Department of Scientific and Industrial Research laid down that for a room to "satisfy reasonable users" the sky should be visible from any point in it at or below the level of a table top. It is obvious that four variable factors govern the granting of this requirement: the height of the window, its distance from the back wall of the room, and the height and distance away of the next building. The first two can be regarded as already fixed within narrow limits—as is the height of a table top. And so we are left with the two variables which we have agreed to combine as the Angle of Light Interference. The angle demanded by the Department of Scientific and Industrial Research as necessary to "satisfy reasonable users" works out to 20 degrees—or less than half the very highest ideal of the London County Council! Instead of a building's height being at worst equal to its distance from the next building (the 1 to 1 ratio) it should really be no higher than four-elevenths, or just over a third of that distance. Even this angle, it will be noticed, does not allow the entry of December sunlight; but there is so little therapeutic value in its rays, when the sun is so

TOWN AND COUNTRY TOMORROW

low above the horizon, that this loss can be ignored as an unavoidable result of the latitude in which we live. Moreover, any reduction of our Angle of Light Interference below 20 degrees makes such disproportionate demands upon the amount of space that must be left between the buildings, as compared with the very few minutes' extension of weak sunlight obtained, that it is not worth consideration. I shall therefore take 20 degrees as the ideal which we hope to achieve, an ideal wildly in excess of anything aimed at in our present towns.

But theoretical possibilities of sunlit homes are of little practical value unless the buildings are so orientated as to allow the sun to shine into them. We have now to work out the best aspect. It is a common fallacy to believe that south is the best aspect for sunlight. This is true only of midwinter, when the light has little power for good and lasts only for a short time. In summer the sun is too high in the sky at midday for its rays to be able to penetrate far into a south-facing room. A much better aspect is possessed by a house facing both east and west, since this gives a generous amount of sunlight to the two sides of the building at all times of the year except midwinter, and also tempers the heat in midsummer. Luckiest of all is the house facing rather north of west on one side and south of east on the other, since most households waste much of the year's early morning sun in bed, but are able to benefit from all the afternoon's and evening's. Moreover, readings taken over many years show that there is on an average more sun in the afternoon than in the morning.

AN IDEAL LAYOUT FOR FLATS

§ 3. *An Ideal Layout for Flats*

We are now in a position to start planning our ideal town. Since it is a town and not a suburb, we shall revert to the Renaissance method of planning a district as a unity and not as a collection of individual little houses. This will also have the effect of preserving our available open space in large pieces instead of chopping it up into relatively useless little bits. We shall save also in the amount of space that must be given up to roads, paths, and other means of necessary access. The one main problem of planning that remains to be solved is how high shall our buildings be. The bungalow can be dismissed as out of the question, and, in the other direction, we will fix ten storeys as coming within the top limit of height fixed by the London County Council. Our buildings will be arranged in lines of continuous dwellings, running approximately from north to south, their length determined by the need for cross roads at right angles to their own line. The usual practice in twelve-to-the-acre development is to provide these about every hundred yards. Where main traffic arteries are concerned, however, the Ministry of Transport recommends that side or cross roads should not be allowed to enter at shorter intervals than a quarter of a mile. For the moment we may picture the length of our lines of flats as being something between these two figures—say, two hundred yards. Since we wish each of their two faces to enjoy uninterrupted sun in either morning or afternoon, it is obvious that these lines can be only one dwelling thick. We will have none of the noisy, shadowy, and draughty central squares or court-

TOWN AND COUNTRY TOMORROW

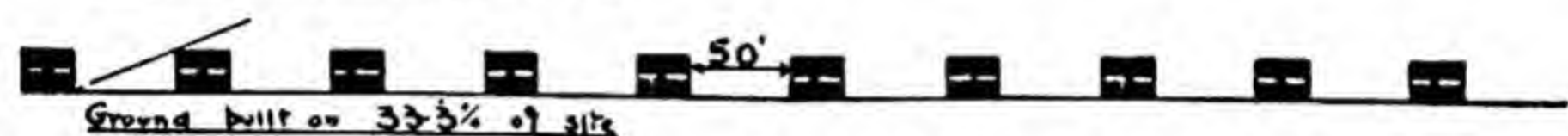
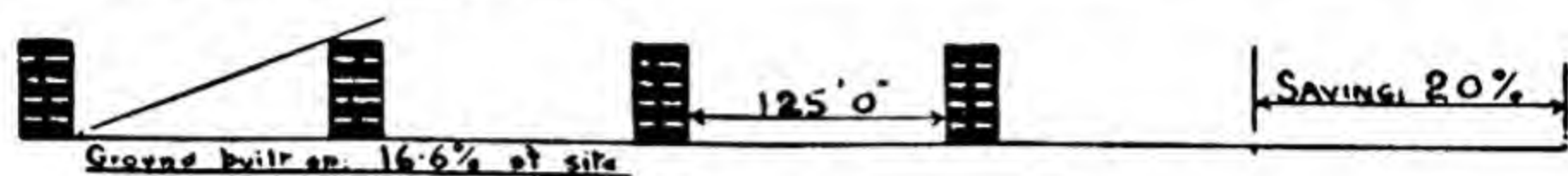
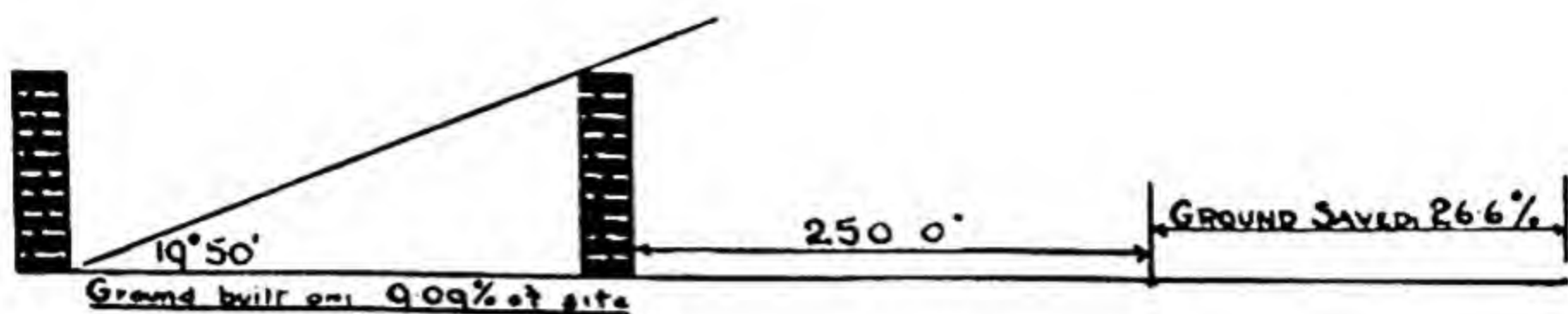
yards which are so usual a feature of contemporary flat design in this country. The breezes will be free to blow through every quarter of our town, the sun to shine on almost every spot.

To see where we stand at the moment, look at the diagrams on the opposite page. These show (above) three elevations, or side-views, of a piece of ground laid out with lines of dwellings of three different heights, each so spaced as to preserve an Angle of Light Interference of 20 degrees in accordance with our ideal, and (below) three plans, or bird's-eye views. Let us examine the upper diagram first. Each of these three layouts contains an equal amount of floor-space—the equivalent of twenty storeys in all. The dwellings or storeys are represented as being each 9 feet high and 25 feet deep from front to back. The first thing we notice is that the ten-storey development, with its necessary open space, takes up less than the five-storey, and very much less than the two-storey (which is far more extravagant than the five-storey). The actual amount of ground saved by the ten-storey development over the two-storey is no less than 26.6

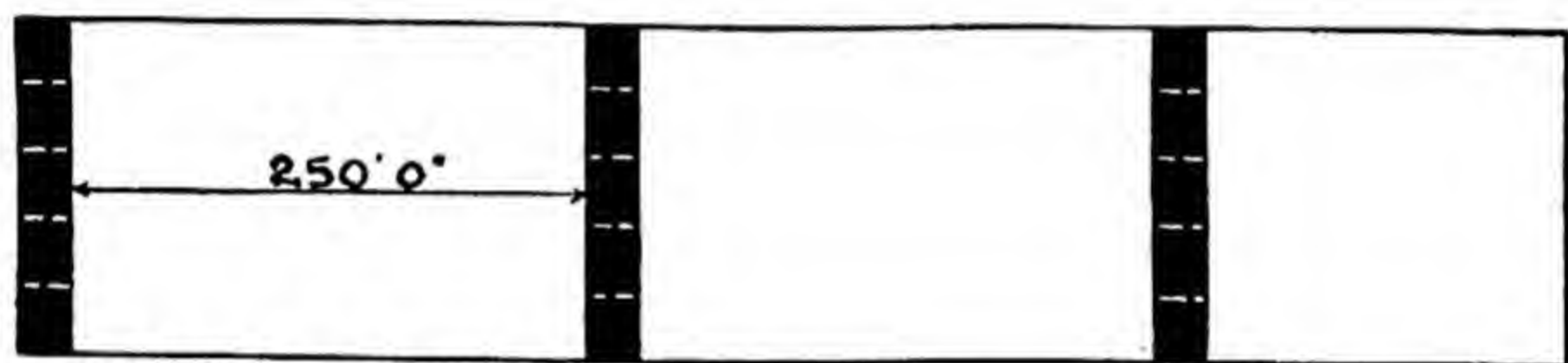
(Fig. 2)

The three elevations at top of opposite page show 20 similar flats arranged in blocks of 2, 5, and 10 storeys respectively, an Angle of Light Interference of $19^{\circ} 50'$ being maintained in each case—and, thereby, an identical amount of open space per inhabitant preserved. If the Light Angle were to be raised to 30° —which would be quite admissible for non-residential and even for certain residential districts—the percentage of ground saved by the higher buildings would be considerably increased: 35.5 per cent. and 26.7 per cent. respectively for 10 storeys and 5 storeys over the 2-storey layout.

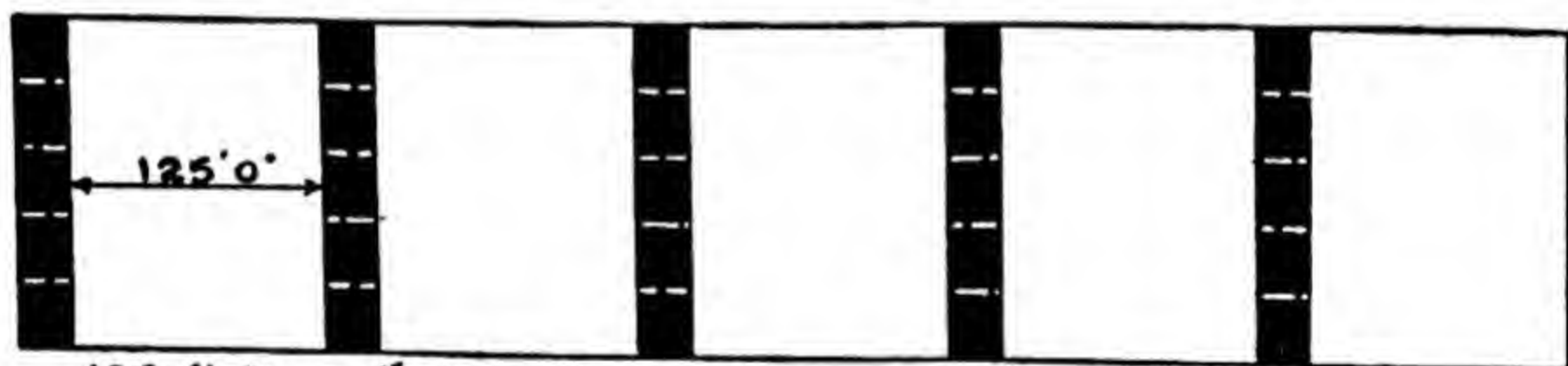
The three plans on the opposite page show equal areas of ground laid out with 2, 5, and 10 storey blocks of flats respectively, an Angle of Light Interference of $19^{\circ} 50'$ being maintained in each case—and, thereby, an identical amount of open space per inhabitant preserved. On the area chosen, 100 flats of 2 storeys are shown as possible under these conditions, 125 flats of 5 storeys or 136.5 flats of 10 storeys. If the Light Angle were to be raised to 30° , the increase in accommodation over that possible with 2 storeys would be even more striking: 36.3 per cent. for 5 storey and 55 per cent. for 10 storey.



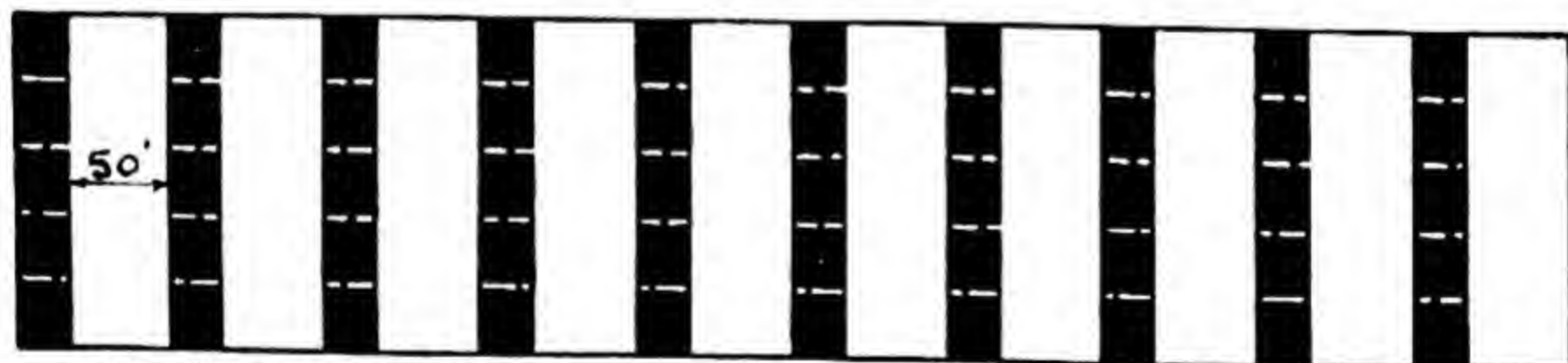
GROUND SAVED BY BUILDING UPWARDS



136.5 flats in 10 storey blocks



125 flats in 5 storey blocks



100 flats in 2 storey blocks

GAIN IN ACCOMMODATION BY BUILDING UPWARDS

FIG. 2.

AN IDEAL LAYOUT FOR FLATS

per cent.—or well over a quarter of the whole site. The saving by five-storey over two-storey is 20 per cent.—or just one-fifth. This, of course, is due to the fact that by building storey upon storey we are saving just that amount of ground which would be built over in the case of a lower development. Since we regard a reduction in the size of our towns as highly desirable from many points of view, this point is clearly very important.

Let us see what other advantages the high buildings give us. There is, of course, a much greater interval between them than between the lower buildings. The rough figures for our particular layout are : ten storeys, 83 yards ; five storeys, 42 yards ; and two storeys, 17 yards. Now, 17 yards is too short a distance to give any sort of privacy at all : all windows have to be kept constantly screened to be safe from overlooking by the houses opposite. The usual distance between house-fronts maintained in twelve-to-the-acre development is about 23 yards—and this is far too little, as we have seen, especially when half of it has to be taken as a public highway, which is usually the case. Forty-two yards is better ; but even that does not secure freedom from overlooking. An interval of 83 yards, however, may be said to give more than adequate privacy : there would certainly be no need to screen any windows but those on the ground floor (which, as we have seen, will very often be used for other purposes than dwellings). Moreover, a space 83 yards wide and 200 yards long is of a very useful size. It will perhaps help towards picturing it if I say that a full-sized Association football ground is 80 yards wide by 120 yards long. It gives scope for almost unlimited planning. For instance, there

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would be room for wide lawns and generous flower beds ; or for tennis courts or bathing pools screened by flowering shrubberies. It could be planted with trees which would in time reach their full country height, so that the white buildings would be no more than glimpsed among the green. Only one-eleventh of the ground is built on : the remainder is left free for roads, parks, gardens, and whatever we will. How favourably this compares with twelve-to-the-acre development where up to one-sixth of the ground may be sterilized by bricks and mortar, perhaps another fifth subtracted from the precious remainder for roads, and then still more for paths and alleys ! Roads, of course, we have still to allow for here ; but as these will have to be considered in some detail later, for the moment it will be enough to state that the area of road per inhabitant required for this type of development is more nearly a third than a half of that called for by the most advanced garden-suburb layout (which makes use of a T-shaped cul-de-sac, round which is grouped an inner ring of houses facing inwards).

But let us get back to our purely theoretical diagram of the possibilities of two-, five-, and ten-storey development with an Angle of Light Interference of 20 degrees, and see what else can be learned from it. The amounts of ground saved by ten-storey over five- or two-, and by five- over two-, have already been stated ; but this can be put in another way—as the number of flats that can be put on any given acreage, still maintaining our light angle. The lower diagram illustrates the densities possible. Here the percentage gains are more striking still, the ten-storey showing a gain of $36\frac{1}{2}$ per cent. (or more than a third extra) and the five-storey 25 per cent.

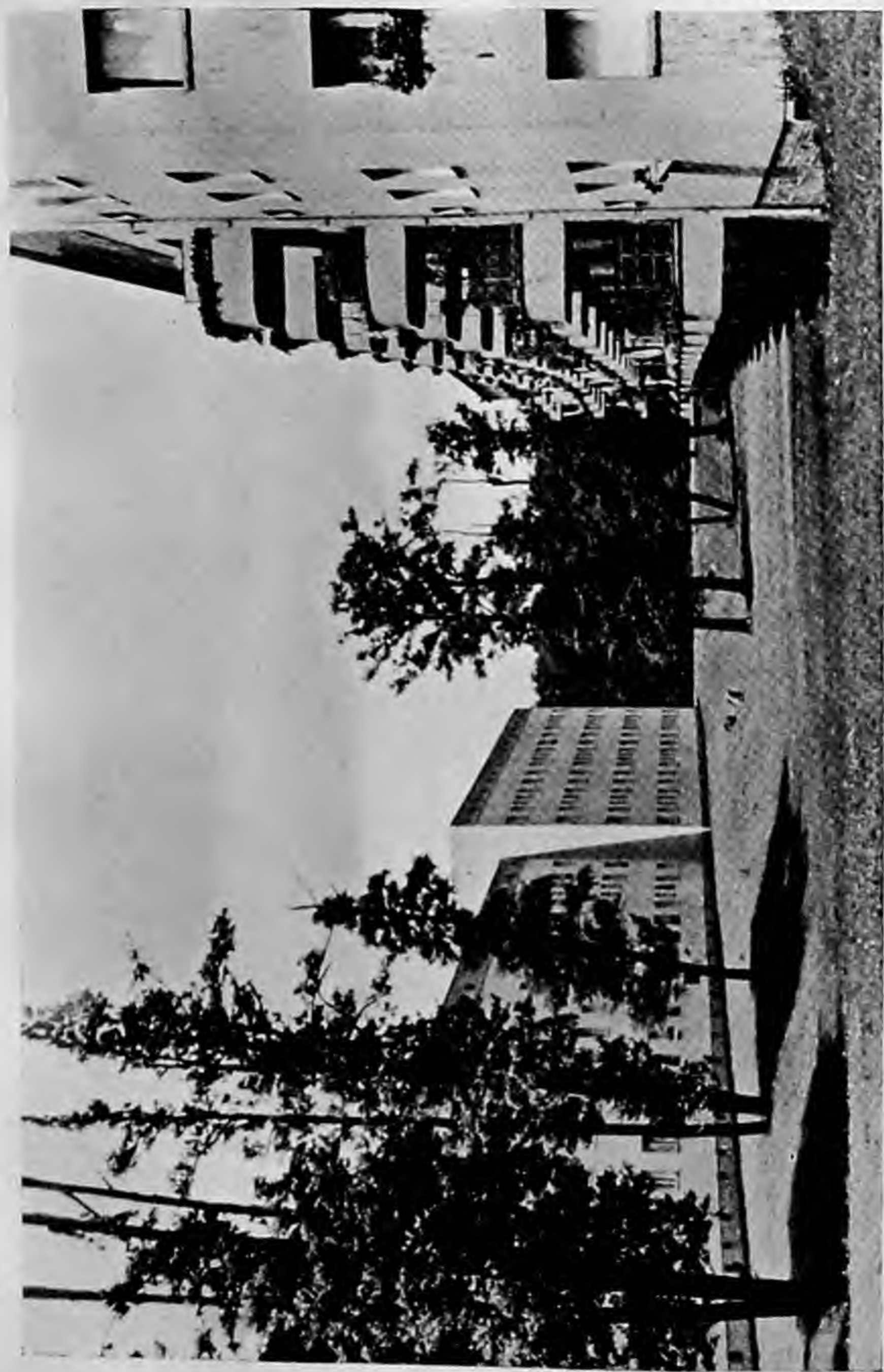


Photo: G. M. Bounphrey.

Pre-Nazi housing near Berlin.

AN IDEAL LAYOUT FOR FLATS

(just a quarter) over the two-storey. Nor should it be forgotten that the two-storey blocks we are now considering are far more economically grouped than normal twelve-to-the-acre cottages, since they are built in continuous lines instead of in very small units and are only 17 yards apart instead of the usual 23 yards or so. But let us see how many flats per acre are theoretically possible according to this layout. The figures are : with two-storeys, 41.5 ; with five storeys, 51.8 ; and with ten storeys, 56.7. As there is no allowance for roads here, if we want to make a fairer comparison with twelve-to-the-acre development, this last figure (which does allow for roads) should be increased to fourteen or fifteen. Allowing four persons per dwelling, then, it will be seen that open development in cottages can house up to sixty people to the net acre, two-storey flats 166, five-storey $207\frac{1}{4}$, and ten-storey $226\frac{3}{4}$, density in the last three cases being controlled by an Angle of Light Interference of 20 degrees.

From the point of view of space-saving, then, or, regarded in another way, of housing the greatest number of people in the smallest space, the ten-storey layout is clearly the best. But it might seem at first glance that by building upwards like this we are reducing the amount of open space available for each inhabitant, and so coming dangerously near imitation of the bad example set by New York, where the sky-scrapers hold a population too large for the streets. But a closer examination shows that we are doing nothing of the sort. As we build upwards, we reduce the amount of occupied ground *only* by the amount that would have been built over if lower buildings had been used. No deduction whatever is made from open space. This is one of the

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beauties of "light" zoning as against "height" zoning. In the theoretical layout we are discussing, the amount of open space remains constant at just under 20 square yards per inhabitant—whether he and his fellows are housed in two-storey or ten-storey blocks. Putting it in another way, if for some reason every member of every family on an estate were to come out of doors at the same moment, each of them could find a position in which he was almost $4\frac{1}{2}$ yards away from any other. I don't suggest for a moment that this allowance is enough for all requirements of recreation—these will be considered later—but it does dispose of any idea of people being herded together like cattle, or even of their having any difficulty at all in entering and leaving their houses or in enjoying the pleasures of the park-like spaces surrounding them.

§ 4. *A First Glance at Costs*

I think it will be conceded that the great advantages in space-saving and other directions which ten-storey development has now been shown to possess justify us in going more closely into practical problems. The first question which must be considered is that of cost—and particularly, perhaps, of the cost of lifts. The latter can be dealt with quickly. Here the limited income of the poorer classes must be our measuring stick: if we can provide lifts for them, we can provide them for anyone. Few figures of installation and running costs of lifts on working-class estates are available—and what there are vary within wide limits. But I shall give three. The Westminster Housing Trust has built a number of five-storey blocks of flats served by lifts for which they

A FIRST GLANCE AT COSTS

calculate the weekly addition to each tenant's rent is 4d. This covers installation, maintenance, running costs, and insurance. At Leeds the weekly cost of lifts serving only two flats per landing is estimated at 1s. 2½d. The Dudley Report shows the combined capital and running cost of lifts for ten-storey blocks containing 120 flats to work out at 1s. per flat as an absolute maximum. In this last case, allowance is made for the lifts being operated by attendants, which is a necessary precaution in most cases. If we take 1s. 6d. as an outside figure, it will certainly not be exceeded and may very possibly be halved. But I have already pointed out that the average cost of heating hot water in a small detached cottage is approximately 2s. 6d. a week, whereas the cost of supplying it to a flat from a large central supply should be no more than 1s. We see, then, that this source of saving alone is sufficient—and almost certainly more than sufficient—to cover the cost of installing, running, and maintaining lift services.

The question of construction costs for our ten-storey flats is dealt with far less easily. According to Ministry of Health returns, the average cost of building a three-roomed cottage is about £300, and of a three-roomed flat £450. But to state this fact baldly is to give a very misleading view of the case—misleading for many reasons. The Dudley Report quotes £402 as the cost of a three-roomed flat in a ten-storey block “for small-scale operation under present conditions.” The words in inverted commas give a clue to one of the misleading factors in the case. When I was abroad three years ago, I found foreign architects as a whole astounded to learn that in this country a flat costs something like half as much again to build as a cottage. With them, they said,

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the reverse was the case : the cottage was the more expensive, costing approximately 40 per cent. more than the flat. It is true that they were talking of three- or four-storey flats, which are perhaps 12 per cent. cheaper to build than ten-storey ; but this nothing like accounts for the difference. The explanation lies in the differing amounts of practice they and we have had in the two very different types of building.

On the Continent many thousands of flats have been built since the last war, and comparatively few cottages. Whereas the very large contracts for cottages given out by our municipal housing authorities have enabled builders to cut their costs lower and lower as their methods have improved with constant practice, until finally the remarkably low figure of 7d. a cubic foot has been reached. Our builders' experience in the large-scale building of flats is negligible. A certain number of working-class flats have been built, but never more than in a piece-meal fashion—and, incidentally, for the totally wrong purpose of cramming more inhabitants into already congested districts. Nowhere has any serious attempt been made to gain the great benefits in economy which the mass-building of blocks of flats could give us. Flat-building has suffered from that spirit of " Well, I suppose we'll have to make the best of a bad job " which has attended all our efforts to improve our towns—and to which I drew attention in an earlier part of this book, blaming it largely on our romantic obsession for mock-country life. The Dudley Report may be quoted as instancing the typical approach of the British builder to the problem of building large blocks of flats. In an analysis of the costs of estimates received for the construction of these, the Report explains an item of £6 per

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room, put down under "Unallocated Assembly Costs," as follows: "In any building works, the contractor is involved in a considerable expense for insurances, the hoarding-in of the site, provision of scaffolding, cranes, and other plant, etc.—matters which cannot strictly be allocated to particular components or trades, and are dealt with in bills of quantity as 'preliminaries.' In simple and familiar work the contractor will often make no charge for such preliminaries, relying for reimbursement on his prices for the remaining more specific items. In more complicated work, especially when he has no experience to guide him, he will often charge preliminaries at considerably more than their value, so as to cover himself fully against contingent risks. . . . Thus the extra £6 per room is largely a measure of the contractor's caution in approaching a new constructional form of unusual height. Had ten-storey tenements already been erected in large numbers, the charge would probably not have been made; part of it, representing the ascertained additional assembly costs involved by higher building, would have been allocated to the other specific items; the remainder, representing the contractor's special cover against unfamiliar risks, would have been dropped out altogether. . . . For similar reasons we feel justified in anticipating a further saving . . . when contractors have become familiar with the use of a steel frame for tenement construction, and have learnt to exploit fully the many facilities for more rapid and efficient assembly which framed construction can afford. Still further savings will, of course, be obtained in proportion as standardization and the other cost-reducing principles, which we have described, are translated into practice." The same is true, it may be added,

of ferro-concrete or any other combination of steel and concrete (such as the Mopin system), or indeed of any rational method of construction. Sir Owen Williams, the well-known engineer, goes even further and states roundly that the constructional capital costs of a four-room flat (in a five-storey building) should, with large-scale production, not exceed £300.

On the whole, then, it seems reasonable to assume that there exists no inherent reason why the flat should cost more than the house. It costs less on the Continent : it might well be made to do the same here. To quote again from the Dudley Report, "We believe that the disproportionately high cost of tenements is, in a word, that their design and construction have hitherto, in this country, been quite inadequately studied." In fact the way in which we have approached the question of flats is just another example of the defeatist attitude which we have adopted towards every attempt to make radical improvements in the central parts of our towns.

But even assuming we were to look upon the extra building cost of 50 per cent. for flats as quite irreducible, there would still be no sound financial reason for neglecting them, since there are other compensating factors which more than tip the balance in their favour. In the first place, there is the cost of site development, such as road-making and the provision of public services. Let us take roads first. There will be a double saving here : the much smaller road area per dwelling in a district laid out with flats, and the obviously shorter run of service roads from district to district in a town which has been kept compact by such development. This, too, is perhaps the moment to emphasize the saving to the whole community that will follow any real reduction

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in traffic congestion—a double saving again, since town-to-town traffic will gain by the abolition or lessening of the present suburban areas which throttle its flow, and internal traffic will circulate much more freely in a town which can spare from its ample open spaces enough ground to furnish really adequate roads. The actual volume of traffic will also be materially lessened by the shortening of the journeys of workers to and from their work.

It should not be forgotten that the man who travels ten miles a day between his home and work place takes up twice the amount of road or rail-space used by the man who only travels five. Unfortunately there is no means of computing how many millions of pounds a year we waste in paying the cost of delay on the roads and railways because of this carrying of hundreds of thousands of workers for long distances, morning and evening, the cost of wear and tear on the roads, and the expense of necessary widenings. For waste it is. A clear line of distinction should be drawn between this type of traffic and any other. It is unnecessary traffic. The workers who cause it do not travel for their enjoyment, it does nothing to enrich their lives, but much to impoverish them. If other things were equal, they would much prefer to live close to their work. For, in addition to the indirect cost to the ratepayer, there is the direct and often onerous cost of fares to those unfortunates who are obliged to make these journeys—a matter that was dealt with on an earlier page.

Yet another burden which has to be borne by the community is the cost of subsidizing the transport of its workpeople to and from their work. Here an extract

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from the *Manchester Guardian*, relating to the state of affairs in Birmingham, tells its own story. "The (Birmingham Tramway and Omnibus) Committee directs attention to the fact that the majority of the housing estates are served by motor omnibuses. With a few exceptions the estates are approximately $6\frac{1}{2}$ miles from the city centre, so that at the present time passengers can travel 13 miles for 5d. During the peak load period vehicles operate with few passengers in one direction and earn approximately 11d. a mile. The operating cost alone for the year 1934-35 averaged $11\frac{1}{4}$ d. a mile, to which must be added $2\frac{1}{2}$ d. a mile for depreciation and net revenue charges. The loss on the workmen's services to the distant estates amounts, therefore, to $2\frac{3}{4}$ d. a mile, even with the present fare. A difficulty which is increased by the development of the housing estates is that of providing vehicles for the morning and evening peak load. At present 1,256 vehicles are necessary in the morning and evening, while the maximum number of vehicles required for ordinary service is 399. Migration of the population from the centre of the city to the outlying wards is steadily decreasing the number of people per acre in the central areas. During the last ten years the population of the central wards has been reduced by 16 per cent., with the result that the number of short-distance riders—the mainstay of the tramways—has been considerably reduced." Here is a direct tax on the community, the very existence of which is not realized by most people. The state of affairs in Birmingham could be paralleled in many if not all of our large towns. All these are items—and very considerable items indeed—which should be added to the cost of building a cottage.

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There remains the cost of providing or adapting such public services as drains, water, electricity, gas, and such public amenities as schools, libraries, public baths, hospitals and clinics, churches, chapels, and town halls—to say nothing of such places of recreation as theatres and cinemas which we owe mainly to private enterprise. In the older parts of our towns these already exist in adequate form. When new areas are to be developed they have to be provided anew. Thus fresh capital has to be sunk; and the returns from capital already invested in such things may be expected to bring in diminishing returns and provide reduced service. It is clearly a wasteful way of doing things compared with the replanning policy we are considering. Here, so far as public services are concerned, the runs of various pipes and cables will be shortened to the same extent as the roads, and the number of branches off them will be materially reduced. Furthermore, in the towns themselves, this equipment is already in existence, so that any redevelopment will call chiefly for its rearrangement. A considerable amount of replacement will probably be necessary, but it will be confined mainly to the smaller capacity conduits. The big water-mains and sewers, high-tension cables, and large-diameter gas mains may in favourable circumstances need little disturbance. It is unlikely that there will be any need for really large-scale works in this field—such as that which confronted Manchester, for instance, when it bought Wythenshawe. Here the City Council had to spend £226,000 on the first part only of a sewage-disposal scheme before housing could be started on the 3,500-acre estate. Exact figures for the site-development of various types of estate are hard to come by; but I shall

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try to provide some estimates and approximations later on. It should be enough for the moment to say that it is by no means unusual for them to amount to ten times the cost of the land itself. (Wythenshawe, which was bought at an average price of about £85 an acre, is now valued at approximately £1,000.) And even these take into account only such costs as are incurred within the boundary of the estate itself, neglecting all those less closely related expenses and squanderings which we have seen to follow as a direct consequence of outlying suburban development. The usual practice is to regard these as "Act of God" and ignore them, though their influence on the rent of the tenant and the rates of the whole district can no more be denied than that of building costs. It is next to impossible to price them in hard figures ; but little imagination is needed to perceive their hugeness. In conjunction with site-development charges, they can surely be taken as more than wiping out the present higher cost of flat construction. At least they will justify us in exploring more closely the possibilities of flat-development along the lines indicated.

§ 5. *Applying the Layout*

Let us now apply our theoretical layout of flats to a site of twenty acres. This, again, will have to be more or less theoretical to the extent that we will imagine it reasonably level, uniformly suitable for building, and free from any of those external factors or encumbrances which would in actual practice affect our plans. Although the absence of these leaves us an enviable degree of freedom, it also forces on us, if we are to be logical,

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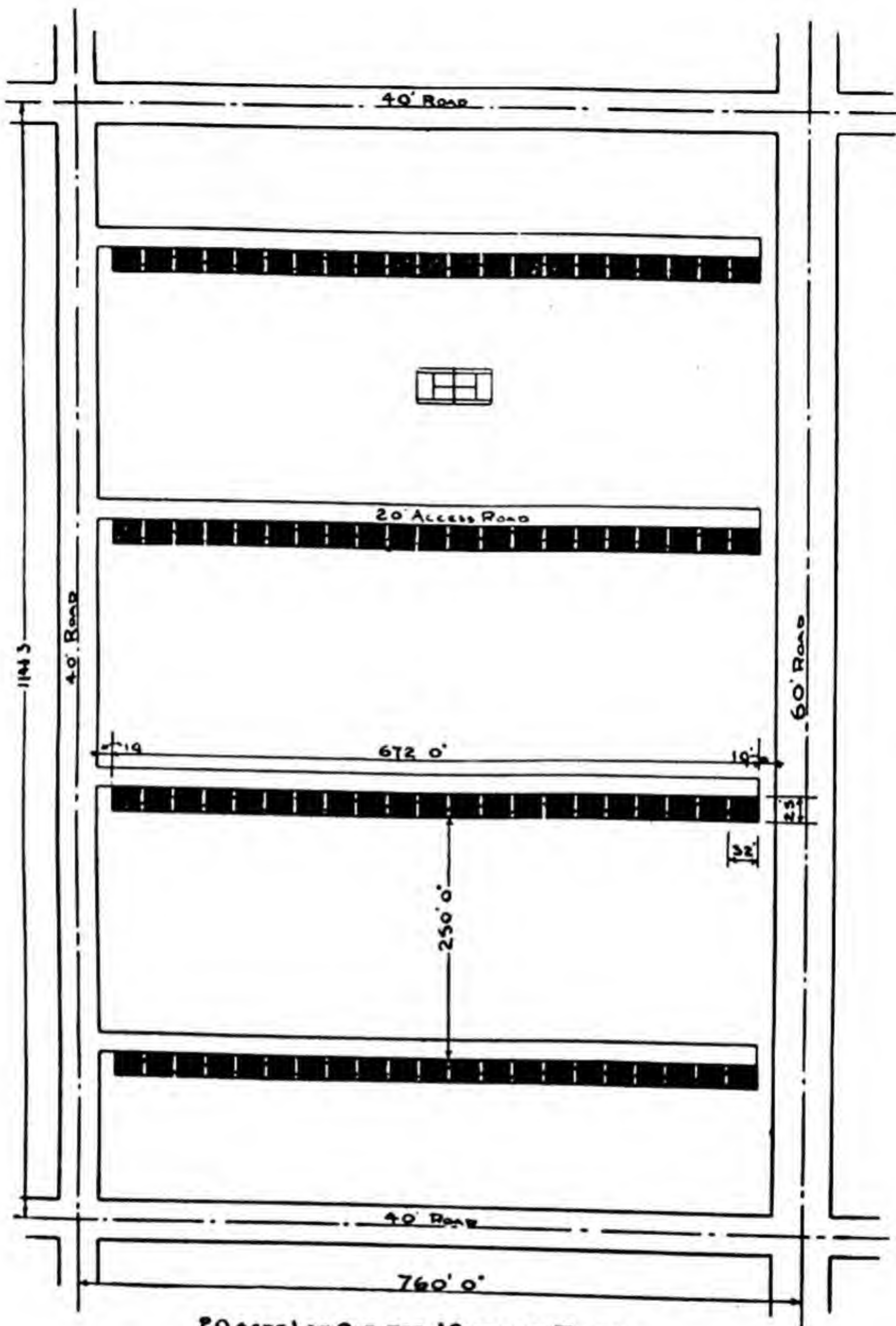
a severely geometrical layout which most people will find austere and ugly, as I might myself if it were to be materialized on a large scale (though even then preferable, I fancy, to many suburbs I know, since it would at least "work well" and its severity could be largely cloaked by trees). The result should be regarded as a diagram, then, rather than as a portion of a real town, though in all respects, except for the limitations of the actual site, I shall try to make allowance for the needs of its inhabitants in a way that was not attempted on pages 83 to 90. I shall choose ten-storey lines of flats, for the good reasons that they preserve more of the land unbuilt on than do lower blocks, thus allowing greater compactness of population with no loss of open space per head, and also that with them the intervals between the blocks become large enough to give all the privacy needed. The Angle of Light Interference maintained is 20 degrees (all but one-sixth of a degree), and this, with the ten-storey blocks taken as being 90 feet high, spaces them 250 feet apart.

We have next to decide what class of population is to be accommodated. The lower-income classes present the most difficult problem from the point of view of the town-planner who is working for maximum concentration, because they must by rights be provided with full facilities for recreation on or near the site. More well-to-do classes are not nearly so dependent for their amusement on the resources of their own neighbourhood: they can afford to belong to outside clubs for tennis, golf, and other games; nor do they need vegetable gardens as a rule. The acreage of ground that can be saved in these directions is not nearly counterbalanced by the fact that they require and can afford more spacious

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living quarters. As we have no wish to consider the most favourable case at this stage, we will assume that we are to house those who are usually referred to—rather invidiously—as the working-class. They have the further advantage from our point of view of being in so great a majority as to represent a truer average of the whole population. Also, they are generally in greater need of new housing than the well-to-do. For the size of the family to be dealt with, we will take the calculation of the Dudley Report and assume that the average size of dwelling required contains 3.15 rooms. By the usual official standard of housing— $1\frac{1}{2}$ persons per room—a dwelling of this size should accommodate 4.725 people. But we are planning a town in which living conditions shall be incomparably better than in our present towns, and so I propose to reduce this figure to 4. If we make the number of rooms 3, instead of 3.15, as a slight compensation and to make our calculations simpler, we still have a density of only $1\frac{1}{3}$ persons per room instead of the official $1\frac{1}{2}$.

The floor area of a three-roomed flat of this type is generally taken as about 760 square feet. We will assume an average all-over size of 800, which can conveniently be obtained by making our flats 25 feet thick and 32 feet long. This is perhaps a little on the meagre side, to allow full space for lifts and staircases; but it is accurate enough for our purpose here. Turning now to the diagram on the opposite page, we see that our site of 20 acres (a space of 1,146 feet 3 inches by 760 feet) can conveniently take four lines of flats 672 feet long, separated from each other by spaces 250 feet long and from the edges of the boundary roads by 128 feet odd at the sides and 19 feet at the ends of the blocks.



20 ACRE LAY-OUT FOR 10-STORY FLATS
ANGLE OF LIGHT INTERFERENCE 20°

AREA OF ROADS	3.23 acres	ADD: RECREATION GROUND	6.75 acres
NET. AREA OF SITE	16.77 acres	ALLOTMENTS	11.37 acres
NUMBER OF FLATS	840	THEN: FLATS PER NET ACRE	22
FLATS PER NET ACRE	50	OPEN SPACE PER FLAT	202 sq. yds.

FIG. 3.
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Each line is then 21 flats long and so contains 210 flats in its 10 storeys, making a total of 840 flats for the whole site. The population of the 20 acres will then be 3,360 persons. Thus we have a density of 42 flats (or 168 persons) per gross acre. Before we can work out the amount of open space per head we must make due allowance for roads. Here I have followed the usual continental practice of taking all main traffic past the ends of the blocks, allowing only 20-foot access roads along one side of them, and even these are culs-de-sac to prevent their abuse by vehicles attempting to cut across. For the whole site I have allowed 40-foot roads round three sides and a 60-foot along the fourth. The actual sizes these would have to be in practice would of course depend upon the requirements of adjoining districts and the routes of through or cross traffic; but the allowance made is sufficiently generous. In calculating the area given up to this purpose, half of the four boundary roads and, of course, the whole of the narrow access roads are taken. The road area for the 20 acres is then found to be $3\frac{1}{4}$ acres, leaving a net area of $16\frac{3}{4}$ acres free from roads, which represents an open space of over 21 square yards per head of population—all in the form of large expanses which can be put to good use. On the diagram one tennis court will be seen drawn to scale to give some idea of these intervening spaces.

It is not for a moment suggested that an allowance of $16\frac{3}{4}$ acres is a large enough recreation space for 3,360 people. The standard laid down by the National Playing Fields Association, and generally accepted as reasonable, demands 7 acres for each thousand. At this rate our population of 3,360 should have the use of $23\frac{1}{2}$ acres. Our net open space on the 20-acre site is at

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present $16\frac{3}{4}$ acres, so to make up the total I propose adding a recreation ground of $6\frac{3}{4}$ acres in the immediate neighbourhood. There is still the question of gardens to be considered—or of allotments, rather, since we may surely assume that the average townsman's love of a flower garden will be more than satisfied by our provision of large, communally kept gardens, measuring nearly 80 yards by 240 on both sides of his house. The keen flower gardener we need not consider, since he will gladly put up with the disadvantages of life in an outer garden suburb in order to pursue his hobby ; but I feel we should do something for the man who wishes to grow his own vegetables—and perhaps to have his own little summer house where his family can take tea in summer (a striking feature of the allotments on many German housing estates). It is by no means every man who wishes to do this, as we have seen ; but it seems reasonable to allow an allotment for one family in every three. A typical twelve-to-the-acre garden is 168 square yards, free of roads and buildings—but not as a rule free from access paths to front and back, nor from backyard functions. We will be more generous than this, since we are catering only for keen gardeners, and will make our allotments each of 200 square yards—practically the whole of which will be available for its proper purpose. These 280 allotments will need another $11\frac{1}{2}$ acres. Our total site of building estate, recreation grounds, and allotments will then occupy $38\frac{1}{4}$ acres.

Before I go further I had perhaps better attempt to meet the recriminations that will be heaped on these proposals by those who are accustomed to think in terms of twelve-to-the-acre. Among such there has grown up a habit of thinking purely in figures appertaining to



Photo : G. M. Rounphrey.

Allotments and flats in pre-Nazi Germany.

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open development—without ever referring back to the primary considerations from which these figures were originally derived. I have already referred to that article of faith which believes blindly that any form of housing more compact than twelve-to-the-acre must automatically be less healthy, though unfortunately not always avoidable. In the same way one meets the argument that to build upwards in the form of flats is almost useless, because if we are “to give the same garden ground and recreation space per family (the latter at 7 acres per 1,000) as can be provided with cottages at twelve-to-the-acre,” the gain in compactness is inconsiderable, even if we go up to ten storeys. This is perfectly true—but why are we expected to assume, with a totally different layout, adapted to suit a very different sort of life, that the same amount of garden ground is necessary or even desirable? Instead of the little individual garden, extravagant in its use of space as we have seen it to be, and possessing little privacy to sight and none to hearing, we are providing all tenants with the use of gardens well over two hundred times as big, on to which their windows look and their doors give. The maintenance of these gardens will call for no exertion from the tenants as a whole: those who like gardening for gardening’s sake are catered for separately. Similarly I may be told that I have deliberately tried to convey a false impression by counting in, as open space, ground that is built over—since I subtracted only the roads from the total area. It is not the built-up ground that I counted, however, but the roofs of the buildings themselves. The roof of a cottage is useless except for the diversion of rain water; but here on these flats we have splendid expanses 25 feet wide and 672 feet long,

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set high up in the clean air and capable of being used in a score of different ways. Lastly, I have counted the whole garden area except the allotments as contributing towards recreation space. This is not done in open-development calculations. But in such layouts the size of the garden plots forbids their use for any more spacious form of recreation than French cricket—and that only at the expense of any flower beds there may be. One cannot even take a stroll in a garden measuring 30 yards by 10. But, as we have seen, our gardens are of a size to hold shady walks and park-like spaces, in addition to such features as tennis courts, bowling greens, and swimming or paddling pools. They are as much recreation spaces as gardens. For such things as football and hockey grounds there is a space of $6\frac{3}{4}$ acres set aside purely for recreation.

The explanations in the foregoing paragraph are all based on the assumption that we are dealing only with our one small estate, amounting to no more than thirty-eight odd acres. Even if we confine our considerations within these narrow limits, it would seem that the allowances made for the health and comfort of the tenants are at least adequate: they certainly represent an almost inconceivable improvement on the conditions of life in our present large towns. But to judge them only in relation to this one limited patch of rational development is to deprive them of the greater part of the evidence that could be put forward in their favour. Wider considerations must not be excluded. We have to think of our own estate as surrounded by others developed on similar lines—each of them provided with large parks, playgrounds, communal gardens, and spaces for recreation. We have to think, too, of the wider

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effects of such planning on a large scale—the towns made more compact, the real country brought within easy reach. (I shall try later to make some estimate of the degree to which this can be done.) With all distances reduced, to work, to friends, to shops, to entertainments and other urban amenities—in fact with all the attractions of the town far more accessible than now, and with the healthful resources of the countryside itself brought far closer, it is quite clear that the lives of townsfolk will be infinitely richer and more varied than they are today. If each one of these factors be carefully weighed and the gross result accepted as a more accurate basis for judgment than a comparison with irrelevant twelve-to-the-acre figures—then I think it must be conceded that the various allowances suggested are not merely sufficient but almost Utopian. At any rate, I think I am justified in assuming their adequacy.

We have, then, a total acreage of $38\frac{1}{4}$ acres, of which only $3\frac{1}{4}$ acres is under roads. Only 4 per cent. of our ground is built on, and even this is not wasted since we have flat roofs on our buildings which are available for recreation or other useful purposes. One whole section of $18\frac{1}{3}$ acres—or almost half of the whole estate—is entirely free from buildings. On our site we have 840 dwellings with 3,360 people living in them. The amount of open space free of roads is just over $50\frac{1}{2}$ square yards per head. The usual twelve-to-the-acre allowance is 76 ; but of this almost half the aggregate is in other people's little private gardens. Of ours, only 16 square yards per head is in the form of allotments : the whole of the remainder is open to all. To put this in another way, whereas the inhabitant of a 20-acre site laid out at twelve-to-the-acre has his own tiny garden

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of 168 square yards, plus the use of a recreation ground of rather less than 7 acres, or the doubtful pleasure of being able to walk along the $2\frac{1}{2}$ acres of roads in the area, the inhabitant of a similar sized site laid out on our plan has the use of large gardens and parks, a recreation ground, and a flat roof, amounting to over $11\frac{3}{4}$ acres in all, as well as a one-in-three chance of owning an allotment of 200 square yards if he happens to want one. Something less than $1\frac{3}{4}$ acres of the 20 would be under "through" roads. Reverting to our actual $38\frac{1}{4}$ -acre estate, the density of housing over all is almost exactly 22 flats or 88 persons per acre. It remains to be seen what, if anything, can be done in the way of reducing the size of our towns by carrying out our rehousing at this density.

§ 6. *Space-saving in our Towns*

Let us begin by comparing the present densities of some of our towns. Greater London houses its 8,204,000 at the rate of $18\frac{1}{2}$ persons per acre. In London itself the average density is 60. Birmingham, our next largest town, with a population of 1,002,000, shows 20 per acre; Manchester, with 730,000, gives $33\frac{3}{4}$, and its neighbour, Salford, houses 234,000 at 45. Leicester's 261,000 live at a density of 28 per acre, Oxford's 90,000 at just over $10\frac{1}{2}$, and Gloucester's 56,600 at $12\frac{1}{4}$. There is clearly a possibility of saving space in some of them—theoretically. But if we hope to be able to do it by attacking the most congested areas first we are doomed to disappointment, for the simple reason that they are already far more crowded than our ideal standard of 88 persons per acre. The average density of nineteen slum

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areas cleared in a London borough was 275 ; in Sheffield six areas averaged 355. It would probably be not far from accurate to say that where the clearance of slums alone is concerned, something over 300 persons per acre have to be dealt with. The usual practice in London at present is to rehouse as many as possible on the cleared site at a density of between 250 and 300, and move the remainder out to some distant suburb where they are put into houses built at twelve to the acre. So—and in other ways—London grows ! The rehousing in tenements of four or five storeys, though a notable advance on the slums it supersedes, cannot be considered tolerable by our high standards. London is already deficient in playing fields to the extent of some 50,000 acres, or, roughly, by some seven-eighths of the accepted standard—and it is still sprawling outwards and making the open country less and less accessible to its inhabitants. According to the report of the Mansion House Committee, 324,000 new houses are urgently needed. If these were to be built on the outskirts at twelve-to-the-acre, London would swallow yet another 27,000 acres of country ; and the clearing of every yard of the sites on which the 324,000 families are living today would not reduce the serious shortage of open spaces by any considerable extent—probably by less than 10 per cent. For her absorption of 27,000 acres on the suburban fringe she might possibly free 5,000 acres in the central districts. The application of our own layout of ten-storey flats would not be a great deal better, even if we assume the 5,000 acres to be available in useful sized areas, which is not the case. We could only provide about one-third of the new dwellings required, leaving the rest to be built elsewhere. And although our own tenants would

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have a proper allowance of open space, the reduction of London's shortage as a whole would be even less. We can improve things to some extent by submitting that it is ridiculous in our present desperate state to reckon on providing allotments in London's denser central districts, as indeed it is—the time for those will not come until very much larger areas can be cleared. In this way our density would be increased from 22 flats per acre to $31\frac{1}{2}$; but even so, not half the families could be rehoused in the same districts. No, in London at least, with whole boroughs averaging in some cases over 200 persons per acre, and the districts in most urgent need of rehousing frequently exceeding 300, some other method of attack will be needed if we persist in setting our faces against the policy of encroaching yet further on the countryside, and moving far away from their work those very classes who can least afford it. Not London alone, but Greater London, with its density of $18\frac{1}{2}$ persons per acre, will have to be our unit of planning.

But London is an exceptional case, which I shall return to later. Other towns are more immediately promising. Let us take Manchester as being fairly high up on our list of densities, with an average of $33\frac{3}{4}$ persons per acre. This also provides me with a good opportunity of contrasting the eventual results of a rational flat layout with those of the type favoured by most garden-city protagonists. Manchester is fortunate in having as one of its citizens Sir Ernest Simon. He is keenly interested in housing, and was largely responsible for the acquisition of Wythenshawe, a large corporation estate which is being developed exceptionally well on garden city lines, though by reason of the narrowness of the agri-

cultural belt separating it from Manchester it can hardly be justified in claiming the title "Garden City." He was Chairman of the Housing Committee from 1919 to 1923, Lord Mayor in 1921-22, and Parliamentary Secretary to the Ministry of Health in 1931. He has placed Manchester yet further in his debt by writing in collaboration with Mr. J. Inman a book called *The Replanning of Manchester*. Looking up the review of this which I wrote for *The Listener* (the Editor of which I must thank for permission to reprint this extract), I find, "In this book he produces what not only Manchester but every changing town and city in the country should have produced for itself by now, a rough working plan to guide its development for the next hundred years. . . . He divides his plan into three stages : (i) ten years to build the 20,000 working-class houses urgently needed to abolish overcrowding ; (ii) forty years to clear and rebuild the 3,000-acre slum belt, at the rate of 2,000 houses a year ; (iii) fifty years to rebuild the business centre of the city. This really is town-planning, bold but not foolishly so, and well-imagined. Sir Ernest Simon is well known for his advocacy of cottages (at twelve- or even twenty-to-the-acre) as against flats . . . nevertheless, he is forced to admit that, in the slum belt, four-storey blocks of flats will be the better solution. He shows himself singularly blind to the broader aspects of regional planning. The city—his own city—is all that matters. Parliament should unhesitatingly allow Manchester to absorb more country within its boundaries as and when Manchester deems fit, and, moreover, to buy it compulsorily. . . . But though the book suffers from many of the fallacies of the garden city creed, its very real virtues should commend it to a

far wider public than that interested in Manchester alone. Its great merit is that it propounds a definite workable plan, and—even more—shows the vital and immediate need for *some* plan should its own prove unacceptable.” What I propose to do here is to examine Sir Ernest Simon’s plan for the complete rebuilding, in forty years, of the slum belt, and to contrast it with the results that could be achieved by our type of development. This belt is about $1\frac{1}{2}$ to 2 miles wide, and runs nearly three-quarters of the way round the business centre of the city, which itself may be thought of as a rough circle little more than a mile in diameter (on the fourth side lies the even more congested town of Salford, with which we are not concerned). Its outer edge is rarely more than $2\frac{1}{4}$ miles from the central point. About half of its 3,000 acres is occupied by small squalid houses, and there is a large amount of industry scattered about haphazard. The total population of the belt is roughly 300,000. In his replanning Sir Ernest Simon intends to turn the whole of this belt into “a really fine, healthy, and attractive residential area,” with the exception of one zone of about 220 acres, into which he will move all industries that cannot be accommodated elsewhere in the city. One thousand eight hundred acres he will devote to housing in flats—much against his convictions. These will be four-storey tenements, built at forty-to-the-acre, and will hold a population of 150,000; thus he is faced with the necessity of moving the remaining 150,000 people somewhere else. The rest of the acreage he allots as follows: 300 acres for schools (accepting the Board of Education estimate of 1 acre for each 100 children); 300 for parks, and 380 for shops, open spaces, and some much-needed park-ways or wide traffic boulevards. Let

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us now see what he proposes to do with the 150,000 people whose 40,000 houses in the slum belt have been demolished and cannot be rebuilt in the same district. From other parts of the city he collects further needs for 20,000 houses, making a total of 60,000 houses wanted. Of these he estimates that 5,000 will be provided by private enterprise outside the city, and that another 5,000 may be built here and there in Manchester itself. Of Wythenshawe he writes, "The plan was made on the basis that considerable areas were to be developed at the comparatively low densities of six and four to the acre. It is now becoming clear that there is likely to be little demand for the more expensive houses which are built at a low density"—a point I shall return to later. "In view of this, parts of the estate are likely to be re-zoned for twelve-to-the-acre building, in which case there will be room for a further 25,000 houses to be built there." That still leaves another 25,000 of his original 60,000 to be found space for. And here he is forced to suggest a further extension of the city boundaries to take in 5,000 acres of an area that is still not unlike country. This "even though the unwieldy shape of Manchester will become even more marked as a consequence."

And now let us see what possibilities may lie in a form of development which, instead of accepting flats grudgingly as an evil that cannot be escaped, welcomes them and tries to make the very best of the advantages they offer. Sir Ernest Simon holds out no hopes of allotments in his rebuilt slum-belt, and we are therefore justified in omitting ours. This brings up our density from 88 persons per acre to $125\frac{1}{2}$. He has, however, made a good allowance for shops and public buildings ;

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so we will assume that in our layout the equivalent of the whole of every ground floor is devoted to shops and the like, leaving us with nine instead of ten storeys available for housing. Our density must, therefore, be reduced by 10 per cent. to 113 persons per acre. Even our 60-foot road can hardly aspire to be a park-way, so we will allot a further 10 acres to make good the difference, and give approximately the mileage of park-way he proposes. The 220 acres for an industrial zone will remain the same. Out of the original 3,000 acres, then, we are left with 2,770 available for schools and housing (which in our layout includes the necessary gardens, parks, and recreation grounds). If we devote 2,260 acres to flats we can house 255,310 persons, and these will require an allowance for schools of 510 acres, which is just the amount of ground remaining. Instead of being faced with the unpleasant necessity of having to move 150,000 people far from their houses, we need only move 44,690. Instead of 50 per cent. of the slum-belt population being homeless as a result of its planning, the total is less than 15 per cent. If we add to these the 20,000 homes wanted for the evicted tenants from other parts of Manchester the total is about 31,200 houses. But Wythenshawe can take 25,000, the city itself 5,000, and it was assumed that private enterprise would provide for another 5,000. Thus instead of having to take another 5,000 acres of country and found a second Wythenshawe, Manchester would find itself with something like 3,800 houses to spare.

So much for the city's point of view ; how would the individual tenants be affected ? If Sir Ernest Simon's plan were adopted, half of them would find themselves living in four-storey blocks of flats at forty-to-the-acre—

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without lifts. These flats would presumably be about 30 yards apart, so that windows would stare into opposite windows at this privacy-destroying range. These narrow spaces would magnify every sound—of children playing, and so on. If the interval were increased by the old-fashioned method of planning round courtyards, a diminution of sunlight and fresh air, but not of noise, would be the result. These spaces are too narrow for proper games or even for gardens ; trees will not thrive in them. The remaining 150,000 inhabitants would find themselves shifted out to an unfamiliar district—perhaps Wythenshawe, six miles away, perhaps a new garden suburb even farther removed. Here they (and Manchester) would suffer under the many disadvantages entailed by suburban housing, which I have already sufficiently described. Certainly they would not have the advantage, stipulated by Howard, of a wide belt of open country encircling their town ; it is doubtful if more than a fraction of them would enjoy his other desideratum—employment in their own district. Can there really be any doubt of the relative merits of the two plans ? In the one the inhabitants would live a full urban life with luxuries unobtainable in cottages, amid gracious urban surroundings and with the attractions of a rebuilt central Manchester only a mile or two away. In the other, half of them would be condemned to the penalties of suburbia and half to uninspired tenement life in a Manchester not to be compared with the above—though incomparably better than the grimy crowded city of today. By the latter plan each year would see more green fields destroyed by the pockmarks of suburbia. By the former, outworn suburbs could in time be cleared and reduced in size, as the merits of this sort of

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housing became generally recognized—thus fresh open spaces would become available and the real country would begin to steal back towards Manchester.

§ 7. *Economies of Rational Town Design*

In making any comparison between the respective merits of housing in urban flats or suburban cottages, nothing could be more misleading than to present the cost of land as a determining factor. As between new garden cities and old town flats the comparison is entirely legitimate. It may be agreed that in a garden city the total cost of a three-room, non-parlour cottage and its land probably does not exceed £500, even when all needful allowances are made,¹ whereas the cost of a flat of similar accommodation can hardly fall below £550, and may exceed £900, according to the price demanded for the land it is built on. To this there can be no reply on financial grounds. One can maintain that even a garden city does not provide the type of life most acceptable to the majority of individuals today, that the land can ill be spared, and that our first energies should be devoted to the bettering of our existing towns—one may, in short, put forward all the arguments

¹ This figure is made up as follows : land, £20 ; building, £300 ; site work, £30 ; roads and sewers, £30 ; gas and electricity supplies and municipal undertakings such as town hall, police and fire stations, hospital, library, swimming bath and wash houses, say £80 ; schools, £40. In the case of flat development in central areas, land may be put at £80 as the lowest likely figure—which may be greatly exceeded in the largest towns ; building, £450 ; and site work, £20. The other charges will probably not arise, though in a large scheme some allowance would have to be made for communal amenities such as are mentioned on pages 122–23.

advanced on earlier pages ; but so far as pounds, shillings, and pence are concerned the fact cannot be rebutted. But when the same argument is used in favour of cottage development in urban or suburban districts, and an attempt made to show that flats should not be preferred unless the price of land is so high as to equalize the relative sums of site and development charges plus building costs, then the challenge can be met with confidence even on purely financial grounds, since it is just such prodigal use of urban and suburban land which has resulted in our present squandering of money to no good purpose. If the utter waste which continues incessantly in our towns cannot be computed in exact figures, nevertheless it must be acknowledged, by any one who has read so far, to amount to a colossal sum. And of this a due proportion must by rights be added to the cost of cottages in urban or suburban areas. By the elimination of wide stretches of twelve-to-the-acre housing our towns could be contracted in area and yet made green, open, and pleasant. Any development which acts in opposition to this policy must bear its share of the waste perpetuated by its presence.

Many items contributing to this waste have already been described on earlier pages—the cost of delay to necessary traffic, the total cost in fares and subsidies of traffic only made necessary by the distances between home, work, and pleasures, costs of providing new services and amenities in new districts, losses by the partial disuse of those already in existence in urban areas, and losses due to the high running-expenses of a relatively inefficient form of housing. There remain others—and first among these comes the cost of ill-health, an enormous and incalculable tax which falls on

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the individual, on the employer, who loses the working time of the employee, and on the State, which has to make large payments for the maintenance of health and sanitary services. If we were in any doubt as to whether the remodelling of our existing towns or the building of new ones were the more urgent task, the briefest consideration of this aspect alone should convince us. New towns could only take the pressure off the old ones by slow degrees, hardly perceptible at first ; and every year that passes sees the footing of that great bill—in happiness no less than in cash. If there were no way of bringing clean air and sun and green spaces into our towns, then we should have no choice but to replace them as quickly as possible. But the way is plain.

Comparative figures show only too clearly the relation between bad housing conditions and high sickness and mortality rates. But as we saw on page 24, good housing can do little unless its inhabitants' incomes suffice to buy wholesome and ample food. Here, then, so far as the more poorly paid classes are concerned, every saving which flat life can give them is of double benefit. That 6s. or 7s. a week, which is the cost in fares to the average inhabitant of the London County Council's Becontree estate, may make all the difference between a well-nourished family and one whose lifelong ill-health due to malnutrition will be a constant expense to the community. Nor can anything good from the health point of view be said of travelling in crowded public vehicles. Everything reasonably possible in the way of disinfection is done by all efficient transport organizations ; but the risk remains : the spread of epidemics is encouraged. Apart from actual sickness, the fatigue caused by long journeys has been

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found to have ill effects on workers which further investigation should be able to express in actual figures of loss. Inquiries in three different German towns showed a distinct connexion between accident and sickness rates and the times taken to reach work. If the effect of long journeys is to increase the workers' proneness to accident and ill-health, it must also tend to reduce the work itself either in quality or quantity. So the employer loses, through him the community, and—at least in the case of piecework—the worker.

Smoke is another of the evils of town life that can, and should be, abolished. It is estimated that London pays an annual bill of £7,000,000 for its filthy air; Manchester pays almost £3,000,000, and Birmingham well over £2,000,000. As a nation, every man, woman, and child pays on an average the sum of £2 a year in "smoke tax." These figures are based only on the costs of the excessive amount of washing and cleaning that is needed, of wear and tear resulting, of damage to buildings, and of inconvenience caused by fog. They do not take into account the vast losses caused by ill-health. Respiratory disease causes about one-twelfth of the deaths over the whole country. In particularly smoky towns it is not unusual to find the death-rate from this cause standing at twice that figure. A smoky and dusty atmosphere is held to be one of the main causes of bronchitis and those ills which frequently follow, and "as a cause of infant mortality it transcends all others." The important point to note here is that the bulk of our towns' smoke does not come, as might be thought, from factories and other industrial sources: over three-quarters of it is emitted by the domestic grate, which is far harder to control legally than the lesser offender—and, in fact,

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no attempt to control it is made. To quote from the Department of Health for Scotland's report on "Working-class Housing on the Continent" (1935): "The use of soft coal for domestic purposes, almost unknown on the Continent, is, of course, a menace to cleanliness and health. It will undoubtedly be abandoned here ultimately, but the time is not yet. We shall presumably have to continue making provision for coal fires until better methods become cheaper and more popular. Central heating and smokeless fuel provide good substitutes, *but the former is possible only in large schemes of massed building*, and the latter is still too dear for working-class consumption." (The italics are mine.) I am far from minimizing the value of the open fire in contributing to the home atmosphere; but, clearly, one can pay too high a price for it—and that price we are paying. Not only is it paid by the whole community in the ways just mentioned; but it falls as a direct tax on the householder in wasteful consumption of fuel and in extra work in the home. With ten-storey blocks of working-class flats, such as we are discussing, the question of providing open fires does not arise, because the space taken up by the flues, increasing with each storey of height, would become prohibitive before the top was reached. If we are to be expected to give up our dearly loved open fires, we shall rightly demand very substantial economies and comforts in return. It is difficult to see how these will be forthcoming in any other form of housing. One often hears it said in this country that flats can never be "homes" to the same extent as houses or cottages. But here is another extract from the Scottish Report: "On the Continent the home obviously plays a greater part in a man's life than it does in Scot-

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land . . . the existence of a greater house pride is obvious, and in leisure hours the working man seems to find his home a centre of happy interest rather than, as too often happens in Scotland, a mere refuge for food and rest. . . . Generally speaking, the furnishings and fittings are more modern and better kept, and house management among the poorer classes seems to be more economical and efficient than with us." This must make disturbing reading for those many critics of flat life who are content to base their views on fancy or hearsay, instead of going abroad to examine conditions for themselves. Or can it be that Scotland is so very far behind England in the quality of its home life ?

The economies to be effected by rational housing crop up sometimes in unexpected places. The Housing Director of Liverpool has estimated that as a result of redeveloping a congested area of 58 acres the City Council will save £1,000 a year merely because the corporation dustcarts will have to make far fewer stops at the lines of flats than they had to do among the crowded cottages. As he states that a saving of £600 a year in another direction (by reducing the length of streets to be kept up by $1\frac{1}{2}$ miles) will in forty years pay off the Council's contribution to the cost of rehousing 160 families, we may assume that the saving on refuse collection alone will cover the housing of a further 266 families. As a matter of fact, the use of dustbins and carts is fast becoming an anachronism. In France a system of refuse disposal through the kitchen or scullery sink has been widely used for more than ten years, and has given entire satisfaction to tenants and authorities alike. It seems illogical to have substituted flushed drainage and centralized sewage for the old "night-soil"

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carts and yet to tolerate individual collection of dustbins, which in the hands of the careless tenant can be almost as noisome and unhealthy. By the Garchy system all refuse is shot down the sink into the soil pipes, from where it is taken to a central disposal station. There it is freed from liquid, and the residue is burned, with other fuel, to provide heat for any communal purpose required. Here, again, is the possibility of reducing yet further the cost of heating flats. The actual amount of work given the housewife by the need to fill her dustbin and put it out for collection may not be very great—though where it must be carried down several flights of stairs it must be very considerable ; but in other ways life in a modern flat can make her task much lighter. The area of house that has to be kept clean is made much smaller by the elimination of stairs and landings and by the reduction in passage space. Various communal enterprises can make the work that remains for her more easily accomplished. For instance, washing and ironing machines are out of reach of the working-class woman as a rule, and in bad drying weather she has no alternative but to make the atmosphere of her kitchen damp, steamy, and unpleasant by hanging her clothes up indoors. But on the Continent (and in some recent English housing estates where flats are used) it is customary to provide both laundries and drying-rooms for the use of the tenants. Not only may these be equipped with apparatus to enable the work to be done as easily as possible ; but also the labour is made pleasanter by the opportunities for social intercourse which such places offer. Again, the cost of hiring help to look after babies and children under school age can rarely be met by the working classes. But in large blocks it is not difficult

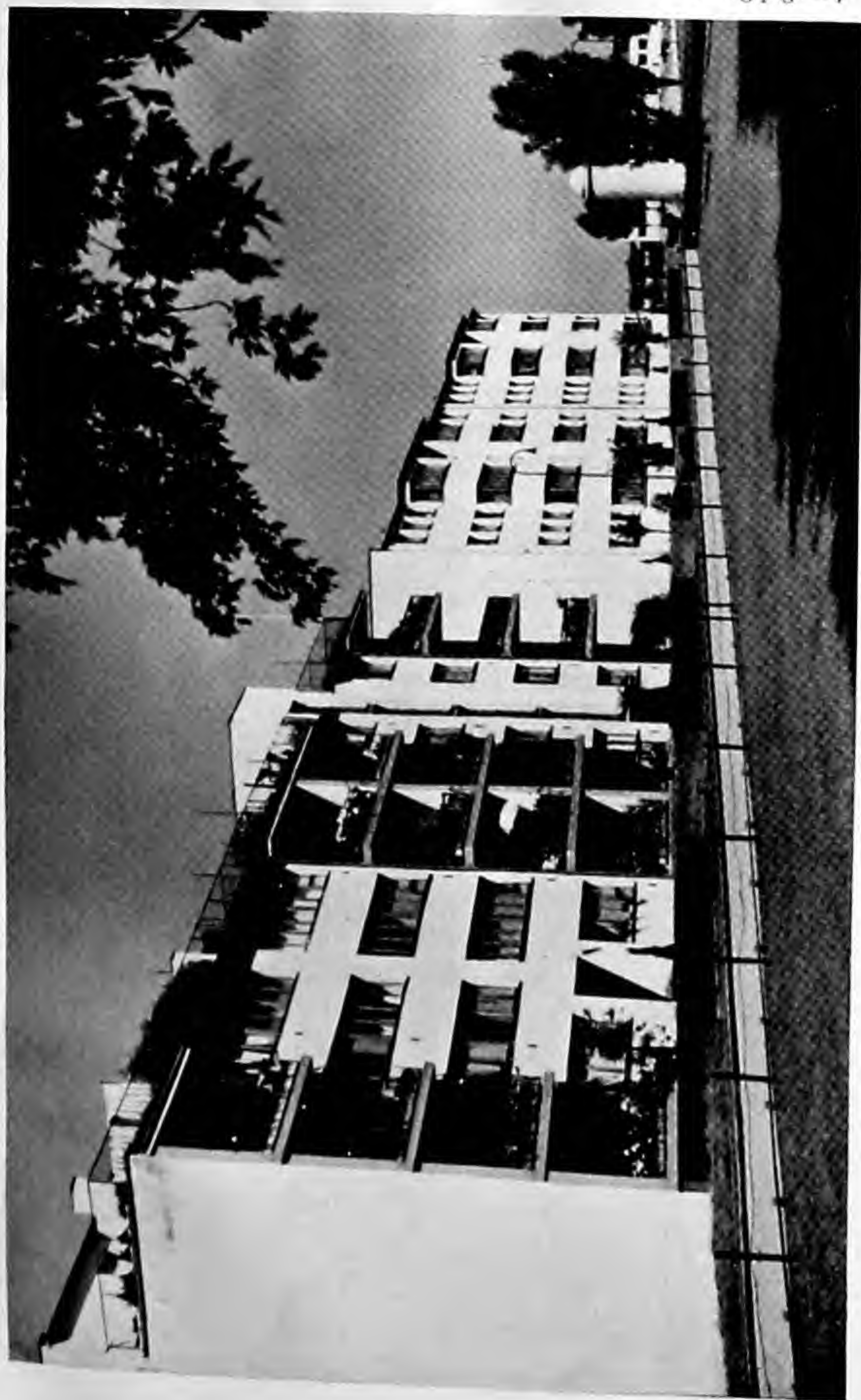
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to provide at negligible cost, crèches, kindergartens, and play-spaces where a mother may leave her children in the safe care of trained attendants. Very often the flat roof is put to this use. No mention has yet been made of balconies. These, too, offer a space where a baby can safely be left to take the sun and air out of the mother's way, yet within instant reach through a french window. If one may judge by the delightful use that is widely made of balconies on the Continent for growing flowers, it seems that this feature can go far towards satisfying the very common desire to "grow something." In Germany particularly (and in what was Czechoslovakia) one can pass by thousands of dwellings beautified in this way. If the slum-bred English are as keen on their window-boxes as is averred, here is a more generous avenue for their activities, which if used fully is certainly no less pleasant in its effect than that of the average privet-haunted suburban garden. To quote the Scottish Report once again: "In many Continental schemes there are communal features quite unknown in this country, such as recreation and reading-rooms, guest-rooms, sewing-rooms, billiard-rooms, gymnasia, and restaurants. Storage for prams and bicycles is almost universally provided in tenement schemes, usually in the basement or on the ground floor. Such communal features . . . form a very substantial addition to the real value of the accommodation provided within the walls of each individual house."

And then in an English newspaper one reads, "The well-kept grass, of course, must not be walked on. . . . An expanse of clean black asphalt surrounds the blocks, but only small children may play there. Boys of twelve and over hang about with nothing to do. . . . But

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when five families live superimposed on each other's ceilings, it stands to reason that the surrounding streets can no longer give playing space to such a number. Before their homes were pulled down the fathers used to put on their pipe and potter about the yard in the evening. They find it dreary to smoke a pipe skied up high on a concrete balcony, alone, looking down on black, clean asphalt." That, perhaps, summarizes the average English idea of life in working-class flats. Is it any wonder that a Labour M.P. should say in the House of Commons, "I would rather see our people living in little houses of their own where they can feel like kings in their own castles than that they should be herded together like soldiers in barracks." It is true that kings' palaces are not, as a rule, overlooked from every side at a range of a few yards; and true, too, that kings' incomes usually suffice to buy them and their families adequate nourishment; but one knows what he means. Those are the English flats of today—just a means of crowding more people on to a given piece of ground at the expense of their open space. Angles of Light Interference maintained at 45 degrees or worse; windows looking into windows from twenty-five yards away—across a space too narrow to serve any useful purpose. That is no sort of flat development to encourage. I am with almost everything that has been said against them. Almost everything. But not everything. Here is an extract from a letter to the *Times*, written by a brilliant and successful garden city architect, "Today our choice is between building cottages which may be real homes, or tenement dwellings which never can be real homes, and in which noisy neighbours, tradesmen, children, gramophones, and the radio destroy



Balcony gardens at Karlsruhe, Germany.

Photo: G. M. Boumpfroy.

all peace and quiet." This is sheer unreasoning prejudice. We have already seen that as far as overlooking is concerned, flats set at 80 yards apart are very much better off than cottages at twelve-to-the-acre. The noise of traffic, if the best type of layout is adopted, completely fails to reach the great majority of such flats at all ; in no case does traffic pass by the windows. Any noise from neighbouring buildings has to traverse 80 yards of space instead of 18 feet. Noise from the open air, such as that of children at play, is likely to be more muted by so large an expanse of garden studded with trees and shrubberies than when echoing off a public road in the narrow space between two rows of cottages. Moreover it will become progressively less audible on each storey that rises above cottage level. There remains the question of noise within the building. In flats of flimsy construction this can be a nuisance ; but the problems of sound insulation are now well understood. (A valuable report on this subject has been published by the Building Research Station.) I have myself made a test from adjoining rooms, completely unfurnished, with a gramophone set on an uncarpeted concrete floor. Not one sound of a loud record played with a loud needle could be heard through an undecorated 4-inch wall of normal inexpensive construction. Impacted noise, such as the overturning of a table or the hammering of a nail into a wall, is admittedly more difficult to deal with : these sounds will be heard in any building that is not extravagantly constructed ; but not so footsteps or any of the noises of everyday neighbourly living. Even the inhabitants of Park Lane have to put up with the noise of traffic if they wish to have their windows open. Our flat dwellers can be spared that. They will learn to

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accord to others that consideration in the avoidance of unnecessary noise which they will wish to be extended to themselves. As we have seen from the letters on pages 53 and 54, cottage housing has no more justification for laying claim to quietness than to privacy. What it has—and there is no getting away from the fact—is the ability to confer a quite illusory sense of privacy. The Englishman's home is nothing like a castle ; but if he thinks it is, we must take good care to offer him superlative compensation in other directions if we want him to forego it. That we can surely do.

It is, unfortunately, impossible, with the international situation as it is at the time of writing, to neglect the aspect of safety in war time when considering the housing of the future. Can it be said of flats or cottages that either is to be preferred from this angle ? And is the compact town of high buildings, widely spaced, more or less vulnerable than the town occupying three times its area, with a multitude of small buildings set closely together ? In our insular position the kind of attack chiefly to be considered is bombing from the air. Our plans for defence against this are based on interception by our own aeroplanes, on anti-aircraft artillery, and on the use of balloon barrages. Considerable official confidence is expressed in the efficacy of these. Clearly, the smaller the area to be protected, the greater will be the efficiency of the defence, others thing being equal. From this point of view, then, the compact town is to be preferred. There remains, however, the question of the relative amount of damage to life and property likely to be done by enemy aircraft which succeeds in penetrating the defence. To begin with, it must be pointed out that the popular idea of a bomb dropping

vertically downwards is wrong. Apart from a slight drag due to air resistance, a falling bomb maintains its position directly underneath the aeroplane it has left right up to the moment of impact—assuming that the aeroplane continues to fly straight. Its course is, therefore, not a vertical line but a constantly steepening curve.

Experience in Spain has shown that far the greatest loss of life in air raids was caused by the collapse of buildings. The construction most resistant to collapse, either from blast or impact (or even from earthquake shock, which is far more severe than either), is that of framed type, either in steel or ferro-concrete; and of these two the second is even less liable to collapse than the first. In fact it may almost be said that the fabric of a ferro-concrete framed structure can only be brought to the ground by successive bombardments prolonged far beyond the limits of any air raid. Panels may be blown out, and one or two floors may be penetrated; but the main structure will continue to stand even though large portions of the frame be damaged. But if even one wall in a brick or stone building is destroyed by blast or by a direct hit, there is the greatest danger of total collapse. In the case of small buildings, such as the cottages on a twelve-to-the-acre estate, it is probable that the mere blast of a large bomb exploding even in the open near by would bring about the collapse of every dwelling within a wide radius. Effects in the older and more congested districts of our towns would be even more serious. Again, the framed building with its floors and roof of concrete or hollow tile is to all intents proof against fire—which cannot be said for the other type.

If we put ourselves in the position of the enemy, we

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see that in the one case he is provided with a large and relatively sparsely defended area to attack, where he may hope to create a considerable amount of havoc wherever his bombs may fall. In the other case the defences he must penetrate are three times as closely set, and he will then find himself over ground only one-tenth of which carries buildings. These are fire-proof and proof against collapse. Is there any doubt which he would prefer to attack? In tall buildings of framed construction it would appear positively unwise to attempt any concentration of the occupants in the basement, unless this were to have been made proof against a direct hit, which may be regarded as generally impracticable. Except for the ground and first floor, where injuries might result from splinters from a bomb exploding on the ground outside, and for the top two floors, which would be vulnerable from above, any intermediate storey would offer an equal degree of safety. Casualties might be expected to occur only from the penetration of a bomb actually through the wall of a flat or through that of a flat adjoining. To many people the unpleasantness of having to herd underground with a large number of others, some perhaps in a state of hysteria, almost outweighs the consideration of safety. In shelters under buildings, too, there is always risk of the structure above collapsing—even from blast, merely—and trapping the occupants, with the added probability of fire. For reasons of safety in war time, then, no less than for all those other considerations we have examined, it seems that rational housing in flats is greatly to be preferred.

PART III

THINGS AS THEY SHOULD BE

§ 1. *Tackle the Old Towns first*

AMONG planners of every school of thought, among social workers, among economists, among lovers of country and lovers of town—everywhere, in fact, where any thought has been given to the subject except among a certain number of those whose interests might be expected to suffer, agreement is found on one major point of town and country planning: the spread of the towns should cease. If not all of these would go so far as to say, “The spread of the towns *must* cease,” it is only because they believe the difficulties are too great to be overcome or because they are unwilling to interfere with what they feel is a natural process of growth. On this last point an Interim Report of the National Housing Committee hits the mark in a few sentences, “We are fully alive to the dangers inherent in any system of public control over building development and land utilization. The present system of tentative and patch-work planning may well prove worse than no planning at all. The most careful and cautious application is obviously necessary for any scheme directly affecting the nation’s economic structure, and which interferes in



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the distribution and location of industrial enterprises and their dependent populations. But, for good or ill, the country is rapidly passing under the control of the planning schemes of local authorities. Moreover, official action, directly or indirectly, is already constantly interfering with the distribution of industry and population. For instance, the application of a Government subsidy to a particular industry, such as sugar beet, may secure a particular population in its existing position. The selection of a new site for an R.A.F. aerodrome or an aircraft factory may create a new centre of population. The prosperity of one manufacturing area may be increased and of another diminished by the negotiation of a new trade agreement with a Dominion or a foreign country. Less immediate but on a far wider scale is the interference involved in the vast programmes of subsidized municipal house building under the 1930 and 1935 Housing Acts. Indeed, the manner in which housing subsidies are distributed by the controlling authorities must have a far-reaching, and might have a decisive, influence on the future pattern of the country's population. Thus public interference and control are inevitable. The only power that can be relied on to prevent their excessive use is the democratic power of the nation as a whole—a power which is likely, in the long run, to be effective for this purpose. The real danger is not so much that use may be excessive as that it may be piecemeal, depending on independent and unco-ordinated decisions, made by the various central departments and local and other authorities without any general scheme or common purpose."

Public control of development is, then, not only essential, but is already with us. What is essential is

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that it shall be co-ordinated—as it most certainly is not at present. And its first job, by general agreement, should be to put a brake on the spread of the towns. What is not so generally agreed is the method by which this should be done. The schemes which number most adherents are those of the Garden Cities and Town Planning Association and of the Hundred New Towns Association. These are extremely attractive at first sight by reason of the relative simplicity of their working, given the necessary facilities. Briefly, they propose to take the pressure off the existing towns by the building of new garden cities or towns. The former would finance this by the adjustment of housing subsidies to favour new towns and towns suitable for enlargement; the latter by the creation of “a certain limited amount of new money on the security of the buildings erected by its use.” Let it be said at once that there is room for both these schemes—in a supplementary capacity. The fact that I have criticized garden cities severely, as compared with rationally planned large towns, does not mean that I would deny them the right to exist. On the contrary, I am convinced that there is a certain proportion of our population temperamentally suited to garden city life, just as there is a certain proportion of vegetarians. All I would urge—and this is the whole purpose of this book—is that we should not allow our energies to be diverted by such side issues from the real job of replanning the existing old towns. These, or substantial portions of these, must be rebuilt on rational lines to give our townsfolk a taste of what life in a modern town can be. Once they have savoured that, I am convinced there will be no longer any hesitation. The alternative is to leave the old towns much as they

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are, with some absolutely necessary road widenings, followed almost certainly by the prohibition of private motor traffic in central areas—until by slow degrees the new mock-Arcadias draw the townsfolk away to a way of living certainly better than the old, but not nearly so good as they could have been given. Then will come a slump in land values and rates in the old towns—the first signs of which are even now perceptible—and public money will have to be poured into them to prevent utter calamity.

It is so temptingly easy, given the necessary powers, to build new towns at least more satisfactory than any we have today ; and so easy, with government support, to make them financially successful, as long as we regard them as isolated units. But half our population is already living in towns too large to attract the early attention of the garden city planner. It is so discouragingly difficult to set about the Herculean task of tidying them up, so difficult to realize the colossal sums that are pouring to waste in them every day, to visualize the extent to which discomforts, accepted as inevitable, could be abolished. In the case of a new town compulsory powers would be granted for the purchase of the whole area to be developed, and for the sterilization of the agricultural belt surrounding it. In the old town we are up against inflated land values, hundreds of landlords, large and small, thousands of leases of different lengths expiring at different times, disconnected and often mutually unhelpful authorities, transport organizations and a whole host of other vested interests—from the board of directors intent only on their dividends to the little old lady who proposes to die in the small house she was born in, whatever developments

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may take place round it. Let us see what can be done in the face of these difficulties.

Generally speaking, the value of land in a town increases in proportion to the intensiveness of its development or to the possible and likely intensiveness. The most valuable part is usually the commercial and shopping centre ; next, the industrial areas ; and, after these, the residential areas. In only this last case does the question of amenities have any large effect on values, and that by no means invariably. It is rarely, indeed, that any considerable increase in urban land values has been due to the deliberate efforts of the landlord. As a rule he has bought the land knowing that it was likely to increase in value, and, beyond small-scale development, has been content to wait until the growth of the town or the trend of fashion has put up the value for him. The Eyre Estate in St. John's Wood, for instance, was bought about a hundred years ago for £70,000. Its value today is approximately £3,000,000. The price of land in the more central parts of our large towns has now reached a figure which makes good planning prohibitive on anything but the largest scale. Development must be intensive to match values which are based on the prospect of intensive development. For this reason much uneasiness has been expressed at the present policy of granting special subsidies for flats to be built at high density in central areas. It is feared, with reason, that the effect of this will be to force land values still higher, so that either housing will have to be planned at even more crowded densities, or subsidies will have to be increased still further. In either case land values may be expected to soar yet more—and so the vicious circle will continue.

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The essential fact to grasp in considering urban land values is that whereas their increase is almost invariably due to the initiative of the community, perhaps through the actions of the local authorities or perhaps from some broader commercial, industrial, or social change, yet the profits resulting from this go straight into the pockets of the private landowner. Even so long ago as 1892, when London was still of manageable size as seen with our eyes today, it was calculated that landlords had seen the value of their property appreciate by one-third in twenty years—a handsome gift of net unearned increment from the community to a few individuals ! Much is said about the danger of interfering with private enterprise ; but in this particular field it is rare indeed to find an instance where the individual has shown enterprise commensurate with the benefits he has derived. We have now reached a stage at which the profits derived from the land in the centres of all large towns have become a quite intolerable burden on the community. In central London, land values of from £10,000 to £20,000 per acre are bringing the cost of small non-parlour flats up to close on £950 ; Manchester is spending over £800 for flats on land costing £7,000. As we have seen, only two courses are open to us. Either we must redevelop these areas—and in doing it, take very good care that of the resulting profits only a due proportion goes to the landlords, the greater part coming to the community in return for the vast sums they will have spent, and will still be spending, on the redevelopment. Or new towns must be built, and every inducement offered to attract the inhabitants of the old towns out to the new—which is another way of saying that the old towns should be left to go bad, until such time as their

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slumping land values sink to a level at which redevelopment becomes economically possible. If a cry is raised that the first course will bring hardship to landlords, it is surely obvious that the alternative would bring, not hardship only, but disaster. Nor would the latter course be desirable from the community's point of view, since millions of pounds' worth of public money has been sunk in the old towns, and this too would depreciate abysmally. Faced with these alternatives, we must surely adopt the former as our main object. It will mean spending large sums of money—but nothing like so much as the principal on the vast interest we are pouring out annually at present in sheer waste—and it will bring in handsome profits not only in cash but in comfort, health, and happiness. If we take Mr. Maynard Keynes as our authority, "Initial preparation should be made," he writes, "so that some plans will be ready and available to ward off the next slump, for the embellishment and comprehensive rebuilding at the public cost of the unplanned, insalutary, and disfiguring quarters of our principal cities. . . . I affirm that there can be no 'financial' obstacle to such achievements, provided that the labour and the material resources are available." In truth, not only can we afford to do these things—the time is rapidly approaching when we shall no longer be able to afford not to do them.

§ 2. *The Control of Land and Land Values in Towns*

If we accept the principle that increases in land value resulting from the expenditure of public money should be placed to the credit of public funds rather than in

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the pockets of private persons (and, indeed, the system of "betterment" in current town-planning legislation is based on its acceptance) we have taken one useful step forward. We have next to consider how control is to be obtained over the necessary areas of town property. It is quite essential for redevelopment of the type we are considering—or, indeed, for useful development of any sort—that the actual sites to be rebuilt shall be very much larger than any which come into the market at the present time. Twenty acres served us very well as an illustration of a particular type of layout ; but ten times that amount would be on the small side for an actual scheme. And if maximum benefits were to be achieved, complementary action or control would have to be exercised not only over the whole town, but over the whole region. Powers more far-reaching than those at present in force would be necessary, unless the planning authority were itself to be sole landlord of at least the redevelopment area—unless, that is to say, something very like the nationalization of urban land were to be effected. Whether this is a desirable step or not I leave to the reader to decide. On the one hand it certainly interferes drastically with private enterprise ; but that we are proposing to do in any case. It is also held to open the door to various abuses, such as the buying of votes by one party or another at the public expense ; but the same objection can be urged against the establishment of municipal housing estates, which have now been allowed to reach a vast scale. On the other hand, it simplifies and cheapens the whole process of replanning enormously. As the law stands at present, a local authority has only such powers as are expressly granted to it by statute (it cannot, for instance, even prepare a

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plan except for districts where it can prove that development is "likely to take place"—and the onus of proof is on the authority); whereas a landlord has the power to do anything that is not expressly prohibited. If the nationalization of urban land be regarded as too drastic a step, there are two alternative methods of procedure. Either there must be worked out a new and very much more complete system of compensation and betterment, whereby the landlord who loses by the plan must be paid out of the profits of the landlord who gains, or else something like the German *Lex Adickes* must be instituted. By this law, first used in Frankfurt in 1902 and since then in many German towns, all land which is to be planned can be taken over by the municipality and pooled. It is then divided into plots or areas suited to the plan, and each landowner is given back a section equivalent to his original holding, less a proportion retained for roads or other public uses. For this last certain compensation may be paid from a fund formed by a "redistribution levy" on all the landowners concerned. This, in effect, not unlike our own betterment. The *Lex Adickes* is applied mainly to undeveloped land; but there would seem to be no insuperable difficulty in applying an adaptation of its principles to the rebuilding of our towns.

It is evident that any planning authority must be on a wider basis than any combination of private interests; but we have yet to decide whether the actual development may be left with advantage in private hands or should be taken over by some other organization. The whole question of municipal versus private enterprise housing has rather regrettably become a political issue, the Conservatives upholding the rights of the latter while

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Labour has claimed better results from the former. The outcome appears to have been in favour of the Labour view ; and the comparative success of the vast amount of municipal housing points to the advisability of continuing along these lines. In several ways a local authority is able to claim practical advantages which are denied to the speculative builder. Not only is it in a position to obtain very much more capital than any private firm or combine ; but it is able to obtain its money at a lower rate of interest. Thus, by reason of the large scale of the operations it is able to finance, it can reduce costs by making the utmost use of mass production methods. Furthermore, it is able to accept lower returns because its money was cheaper and because its schemes are free from speculative risk. The fact that it is not only the building but the planning authority obviates much red-tape and friction—which also tends towards economy. This does not mean that the planning authority should necessarily undertake the actual building, and employ its own direct labour. In times of boom, with prices high and labour short, this might be advantageous ; but as a general rule the work would be put out to contract, when the building trade would benefit in the usual way.

The large towns, with which we are chiefly concerned, would probably act as their own planning authorities ; but in other cases it is probable that the best results would be obtained by appointing special bodies, who would, of course, act in co-operation with the local authorities, but might be expected to possess a wider outlook, greater experience, and better taste than is usually found in urban or rural district councils. On this last point Mr. Clough Williams-Ellis makes an uncomplimentary

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but valuable remark, "The poor showing of our present administration, both central and local, regarding amenities, seems to suggest that any such reform (land nationalization) should be preceded by some intensive and very necessary education." As T. C. Horsfall pointed out so long ago as 1905, we have very much to learn from Germany in the governing of our cities. Now, as then, our local authorities consist of a collection of untrained amateurs in control of a very few paid specialists, whose suggestions may always be vetoed. In Germany, on the other hand, about half the council of any large city is composed of salaried experts who have undergone long training in the technicalities of their profession. The result is only too humiliatingly obvious to any one who has compared German cities with our own. Not only is every detail of the town itself incomparably neater, but the environs retain their country charm and are specially planned as places of delight and recreation for the citizens. This is as much so now as it was before the last war. But German city councils have always been far more enterprising than our own. From the birth of local government a hundred years ago till well into the present century the utmost our local authorities have done, with but few exceptions, has been to say in effect, "You must not do this *worse* than this." In Germany, ever since the Middle Ages, cities have pursued the policy of buying large areas of land and developing it (or reserving it) for the good of the citizens. Ten years ago—whatever the position may be today—there were many small towns and villages owning so much property that the profits sufficed to pay all the taxes of their inhabitants. At the beginning of this century a survey of thirty-one representative large towns showed that eighteen of them

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owned over sixty square yards of unbuilt-on land per head of the populations. It is tempting to aim at a similar happy state of affairs here by pursuing a policy of founding new towns on land which should be owned by themselves from the very beginning—and bought at agricultural value, too. The profits would be enormous. But the price paid in the old towns would be too high. The lure of the “clean sheet” must be resisted. The old towns must be made good. But at least we can make sure that the profits of their redevelopment shall go to the public, who will have footed the bill.

§ 3. *The Location of Industry*

Assuming it be agreed, then, that our main efforts shall be directed towards replanning, opening up, and condensing the large towns, there are none the less complementary steps we can take by way of relieving some of the pressure on these and so helping our prime purpose. Certain existing small towns are particularly suitable for expansion, and others, such as those in the Special Areas, stand to benefit enormously by some revivifying policy; there is, too, room for a limited number of new foundations. The success of any such schemes will depend largely on whether or not it is possible for us to exercise any useful control over the movements of industry. This is a delicate and controversial matter. It is clearly desirable to interfere with the free movement of industry as little as possible; but it is a very noteworthy fact that a committee under the chairmanship of Mr. Neville Chamberlain, which was appointed by the Ministry of Health in 1920 “to consider and advise on

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the principles to be followed in dealing with unhealthy areas," came to the conclusion that "many of the factories now located in London might apparently have been placed elsewhere without any disadvantage to themselves." The development of motor transport has freed almost all but the heaviest trades from their dependence on the railway. The result has been a phenomenal drift of industry south and east to London, or, if not to London, at least to the Midlands. In the five years from 1932 to 1936 the net increase in the number of factories employing twenty-five or more people, in the Greater London Region, was 479. In the whole of the rest of Great Britain it was no more than 2, the losses over the area as a whole almost cancelling out the gains shown by certain particular places. The net increase in the number of insured industrial workers in the ten years ending 1934 was only 4 per cent. over the whole United Kingdom. But the Midlands Division showed a rise of over 6 per cent., the London Division over 21 per cent., and the South-eastern Division over 31 per cent. Judge, then, of the losses over the rest of the country! Population figures tell the same story. The population of South-east England increased by over 1,750,000 between 1921 and 1936, Greater London accounting for over 1,000,000 of the gain. Yet the increase over the whole of the rest of Great Britain was less than 1,250,000. Nor is it only luxury or semi-luxury trades which are drifting London-wards in this way: the same tendency is strongly marked in such unexpected industries as textiles and engineering.

It is reassuring to hear from so good a business man as Mr. Neville Chamberlain that a considerable part of this embarrassing drift of industry has no sound commercial

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justification. Nevertheless, an established industrial concern does not change the scene of its operations without considerable thought and without reasons which at least appear to its directorate to be sound. Many new enterprises give equal thought to the choice of locality, and though others may spring up almost anywhere purely by force of circumstance, the chances are obviously very much in favour of their appearance in the most thickly populated areas. Some considerable time has passed since Professor Adshead wrote, "When an important town has got hold of operatives and trained them, industries go more rapidly to operatives than operatives to industry." Of skilled trades that remains as true as ever; but with the continual increase in the use of mass-production methods, the general tendency is to employ less skilled and more unskilled—and therefore cheaper—labour. Quantity rather than quality is the need. Hence many industries prefer to settle near the largest possible pool of labour.

It is difficult, however, to establish any definite working of cause and effect in this question. After the last war there was a large outburst of new industrial enterprise at Slough, which resulted in a severe shortage of housing for the labour employed. Conversely, the L.C.C. chose to establish a very large housing estate at Becontree, where, until the establishment of the Ford and Bata factories some time later, there was little or no employment. In both cases severe hardship resulted which could have been avoided by proper planning. Manufacturers as a whole (in sharp distinction to certain manufacturers of foodstuffs in particular) are singularly blind to the advantages resulting from having their employees well housed near their work. As we have already seen, a long

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and tiring journey at the beginning of the day reduces the worker's output in quantity and quality, or both, and increases the liability to sickness and accident. Those firms which settle on the edge of large towns (as a great majority now do) may avoid the high rents and other disadvantages of more central sites ; but they pay indirectly through their employees for their shallow reasoning. Though their staffs are perhaps near their labour geographically, they may be very far from it in actual time of travel. But it is probable that few manufacturers give much thought to such points. So long as they can engage the hands, and these can get to work in time, they consider that aspect of the problem settled.

Factors to which they attach far greater weight are : (1) Transport costs both for raw materials and finished products. (2) Suitable premises with room for expansion and public services at reasonable rates. (3) In certain industries, the proximity of similar or allied industries. (4) In certain industries, the presence of a large market for their products close at hand. (5) The snob or publicity value of a certain town or district. (6) Whims, such as personal preference or a desire to follow the lead of other firms in the same business. Let us examine the impact on these considerations of large-scale planning from the national standpoint, which, being national, would of course regard the welfare of all industry as supremely important.

(1) This is evidently an important point ; but on examination it turns out to be rather less important than expected. Mr. S. R. Dennison of Manchester University has made an analysis of the delivery costs of a wide range of manufacturing concerns in Manchester, varying from structural engineering, chemicals, and linoleum, to wall-

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paper, rubber toys, and clothing. He finds that the cost of delivering the finished goods rarely exceeds 5 per cent. of the total cost of production, and is not infrequently 1 per cent. or less. The cost of transporting the raw materials is usually even lower. Basing their calculations on these figures, the Garden City and Town Planning Association has estimated that to move any of these industries to any other situation within, say, 100 miles of the centre of England would not increase delivery costs by more than 10 per cent.—that is to say, by 0.1 to 0.5 per cent. of the total cost of production, which would mean an extra cost of perhaps 12s. a year, and almost certainly not more than £3 for each worker employed. But in a large town the annual cost of a worker's fares may easily amount to £5 or £10—and in London the average spent on travelling per head is actually £15 a year. Furthermore, to house a working-class family in the centre of a large town, the State and the local authority may be paying up to £39 a year in subsidy. In short, the taxpayer, the ratepayer, and the worker may be paying anything up to £54 to cover a reduction of between 12s. and £5 in the costs of the manufacturer. Proper planning could reduce the extent of this and similar absurdities. Nor would even the manufacturer lose, because his loss in this one instance would be much more than offset by gains in several other directions.

(2) The provision of good factories with room for extension and all necessary services at reasonable prices is a rapidly growing feature of modern development. Towns, trading estates, and railway companies are all tending to regard the manufacturer as a potential customer, and are after him with ever-increasing publicity

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and a bait which grows more and more attractive. It is still exceptional to find good and adjacent housing for workers included in the list of attractions; but, as we have seen, this is a point of which manufacturers themselves are slow to see the advantage. Planning would certainly not fail to exploit the value of this and of all other possible benefits in the areas to which it wished to attract industry.

(3) Here is another factor of real weight. The need for the grouping of similar or allied industries is governed either by considerations of transport costs, which we have just dealt with, or by the convenience of having in a particular district a pool of labour skilled in some particular type of work. Both considerations would have to be taken into careful account by any planning authority.

(4) This again is largely a question of transport costs; but there also enters into it to a considerable extent the "magnetic" effect on industry of large centres of population. The manufacturer is attracted towards a market that he knows to be populous and rich. Whether he gains more than he (and the community) loses may in many cases be open to doubt. For the majority of enterprises which have settled in or near London chiefly for this reason (other motives being inconsiderable) and succeeded, it is probable that parallel instances could be found of similar firms equally successful in other parts of the country.

(5) May be considered in conjunction with

(6) There is undoubtedly a considerable cash value to certain firms in having a London address. There is also the question of convenience in being within close range of as many business associates as possible. Many

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provincial firms who used to keep an office and a representative in London have been able to make certain economies by moving their whole organization to the capital. Again, many heads of firms are extremely busy men who can ill afford long and frequent journeys between their works and London offices. Many men, also, are directors of more than one company, and this fact, too, works towards centralization. But as against these very real reasons for the drift to the south-east, there are others which cannot be justified on commercial grounds. The Home Counties are, generally speaking, a more pleasant place to live in than the older industrial areas. Whatever else may be said against their development, they have not suffered the same industrial devastation as the Midlands, South Wales, Lancashire, Yorkshire, and the northern Special Areas. London itself offers social, cultural, and recreational amenities not to be found elsewhere in the country. Clearly, in a free country it would be impossible to forbid anyone to live in any district which he fancied. What *can* be done is to prevent, by zoning, the building of any more factories in areas where their multiplication is found to be against the public good, and to provide inducements for industry to settle in those districts where it is required. As will be shown, wise planning should result in such economies as would make possible the provision of very special inducements.

Many industrialists today are strongly against any interference with their freedom on the grounds that anything of the sort would be dangerous, since industrial expansion is, they consider, a natural process, subject to natural economic checks which will automatically come into operation to prevent any abuse. This view is per-

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fectly sound except on one point. What its protagonists fail to realize is that these checks have already come into operation—and that we have promptly taken steps to negative their effect. Left to its own resources, every large town in the country would go bankrupt and fall into chaos tomorrow. What has actually happened is that the taxpayer all over the country has been called in to pay off the colossal losses in the towns. As a result of their wasteful and unhealthy concentration, central land values have soared up to a point at which no municipality unaided can afford to rehouse its people on them. The Government steps in and pays a subsidy of up to £495 per dwelling. (The little pleasant towns get no more help with *their* housing.) As a result of their appalling traffic conditions, the big towns are compelled to undertake all sorts of costly clearances, road widenings, the building of bridges, the installation of traffic lights, and so on. They could not pay for these themselves—so the Government steps in and, through the Ministry of Transport, pays a large proportion of the cost. So far as can be judged from what figures are available, the most economical size for a town appears to be from 50,000 to 100,000. When this last figure is exceeded, and even before, rates show an upward curve. But again the Government steps in and derates industry, the very factor that does most to increase populations above the economic figure. The cost to the ratepayers of subsidizing cheap fares from suburbs which lie at uneconomic distances from the towns has already been pointed out. What we have to realize is that not only the actual ratepayers concerned, but the whole country is being taxed heavily to pay for the appalling waste that is incurred in a few large towns. Planning could stop this, not by

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allowing the towns to go bankrupt—after all, half the population live in them—but by gradually eliminating the waste and cashing in on the profits which a proper programme would ensure. Industry would have nothing to fear. Few firms except the very largest have a staff possessing the necessary technical knowledge (and it is highly technical) to decide where they should operate to the best advantage of their balance sheets. Only by large-scale planning can sufficient funds be accumulated to subsidize the transfer of industries, lock, stock, and barrel, to the most favourable localities—most favourable not only to them, but to the whole community. If anyone thinks of planning merely as a method of preserving beauty spots (and many do) they should get rid of the idea. Planning aims to benefit the nation as a whole—and flourishing industry is vital to the well-being of the nation. Why, then, should industry fear planning?

§ 4. *A Ministry of Planning*

Every serious and comprehensive suggestion that has ever been put forward for the improvement of our towns and the salvation of the countryside, every book devoted to the subject, and probably every lecture given and paper read—all have felt obliged to put forward as their first requirement some centralized form of control for planning. At the present time the Ministry of Health is normally in charge of planning, to the extent that housing of all sorts is its special care, and that its approval is required before any statutory planning scheme can be effective. But other aspects of national planning are under other quite independent authorities having, as Professor Abercrombie puts it, “little reference to or

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being even antagonistic to one another." Thus the Ministry of Transport has direct control over 4,500 miles of trunk roads, over canals, and to some extent over railways, though these are very much their own masters, being practically exempted from inclusion in planning schemes. Electricity and Forestry are the concern of their own Commissioners. Advertisements come under the control of the Home Office. Drainage, water-supply, mines and factories are yet further departments; and, over-riding all others, the three defence services can cut through any carefully worked-out plan with some project hastily conceived from their own point of view only. Is it any wonder that unsatisfactory conditions, socially, economically and æsthetically, result from this mass of conflicting authorities—when, as Professor Abercrombie writes, "It would be quite possible for the electricity undertakers to arrange for the supply of a village whose houses next year might all be condemned by the medical officer, and which as a whole should be rebuilt on another site either by reason of its inadequate water-supply or because farming reorganization had shifted the demand for labour five miles away?"

In its evidence before the Royal Commission on the Geographical Distribution of the Industrial Population (1938) the Garden Cities and Town Planning Association stated, "It is no doubt clear to the Commission from the evidence of the Ministry of Health that local and regional planning schemes cannot deal with the problem of agglomeration nor adequately with its converse of scattered development. Local and regional authorities can at best note trends and base their plans on their guesses. They cannot have the data for true forecasts. This lack of knowledge compels planning

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authorities to plan for the maximum conceivable growth in any district. The result is a series of unreal and misleading plans." The first proposal of the Association is, "National Planning Board to be set up to give general guidance to town and country development." The lack of any central pool of information is almost as harmful to good planning as the diversity, antagonism, or absence of control. In particular, the trends of population and of migrations of industry and labour are of the utmost value in the preparation of a plan. How hard it is to find such information is neatly summed up by Mr. Clough Williams-Ellis as follows, "The Census of Population, issued every decade by the Registrar-General, uses a different classification of occupations from the Census of Production, taken at very irregular intervals by the Board of Trade ; while the Ministry of Labour, which issues information about employment, conflicts with both. Factories are reported on by the Home Office, but buildings in general are enumerated by categories in the Census of Population ; new buildings assessed for income-tax for the first time are the concern of the Commissioners of Inland Revenue, and the complex mass of information collected by local authorities in the process of rating and derating goes to the Ministry of Health. The cost of buildings for which plans have been approved by the local authorities is assessed by the Ministry of Labour, while housing progress is reported by the Ministry of Health. When essential facts are needed about, say, building, it is often impossible to ascertain them, because not only the collection but the analysis of statistics is incidental to various administrative functions which do not call for a view of building as a whole."

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Under these conditions it is clearly useless to cherish any hopes of sound planning. If the present shocking waste of time, money, and health is to be stopped, the first requirement is the formation of some central planning body, with over-riding powers over every other department. Its duty would be not so much the actual planning (though in the broadest sense this would be part of its functions) as to co-ordinate the schemes of statutory planning bodies, which it would appoint, and prevent that waste and cancellation of effort which occur continually today. Secondly, it would have to administer or empower subordinate authorities to administer the financial side of planning—government subsidies and the whole elaborate system of compensation and betterment, of pooling and redistribution, or of compulsory acquisition, whichever might be the method adopted. Thirdly, it would act as a clearing-house for the varied mass of information to which planners must have access if their schemes are to be sound. It would see that this was duly collected and sent in, and would itself correlate the various items and prepare them for presentation in the most useful form.

There is a well-founded dislike today for any extension of the bureaucracy which has increased so rapidly in the present century. But the formation of a Ministry of Planning (which, I suppose, would be the lowest constitution able to control so many other powerful authorities) would be not so much the addition of yet another interfering Government department, as a gathering together into one hand of the many reins of red-tape which at present pull in different directions. It might take the form of an actual amalgamation of the Ministries of Health and Transport. Thus both private individuals

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and public bodies might well find relief in its operations rather than an increase in restriction. It cannot be too plainly stated that the wholehearted aim of planning is, not restriction for restriction's sake, but the protection of the public as a whole from the results of selfish or short-sighted exploitation. We have examined in this book the hardly credible discomforts and extravagances among which we attempt to live healthy and happy lives today. Almost all of these have resulted from lack of planning. It is difficult to blame anyone for this, because little or nothing in the history of our country up to the last century had pointed to any great need for planning. Changes were so slow that there was small reason to look ahead. When the need arose, we were slow to recognize it, and even had we done so the technique of planning was undiscovered. That time is past. We now have the means and the technique—the only obstacles that prevent us applying them are selfish interest and conservatism based on lack of common knowledge. It may be thought that planning is closing the door to private liberties and opening it to Communism or Fascism. It may be feared that planning is bound to result in extensive hardship to individuals. But it is precisely to avoid these abuses that more complete planning is needed. At the moment the individual is protected to some extent against heavy loss by various "compensation" clauses in our rather half-hearted town-planning legislation. He is not completely protected. On the other hand the public is very incompletely equipped for collecting "betterment" (or money due from landowners on account of rises in the value of their property due to planning) at the public expense. Moreover the public is paying straight into the pockets

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of certain town landlords, who have done little or nothing to earn it, large sums of money in the form of housing subsidies. As we have seen, the effect of these is to put land values up still more, and increase thereby the amount of public money that will have to be spent on future schemes. If these two abuses—of inadequate betterment and unfair land values—could be removed, there would then be money available more than sufficient to eliminate *all* cases of individual hardship and to ensure a fair price for *all* landowners affected by planning schemes, instead of, as today, only those who are lucky. This question of a surplus is the whole crux of the matter. If planning were a luxury that had to be supported at public expense, and its object chiefly to make the country prettier (which is perhaps the popular idea of it), there would be every reason for saying that at the present time we cannot afford it. But this is not so. It is precisely because we are spending vaster sums on armaments and public services than ever before, precisely because of the urgent need for economy that we must plan. Good planning is invariably lucrative. In the face of great opposition Joseph Chamberlain put through a scheme for replanning New Street and Corporation Street in Birmingham at a cost of $1\frac{1}{2}$ million pounds. It has since proved to be an exceedingly profitable investment. London's one considerable planning scheme in the first quarter of this century, the making of Kingsway, paid off its cost and was showing a profit in a space of time which astonished even its most sanguine supporters. But these are only small nibbles at the financial benefits which planning on the large scale could bring. Waste saved is much; but profit made is more. Even on the reduction in waste it would

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effect, national planning could more than pay its way. But the increased values it would bring to public and private land would constitute a real increase in the wealth of the nation.

§ 5. *Replanning the Old Towns*

The general policy of the new Ministry of Planning would be firstly to require the large towns to set their house in order. They would be plainly told that no further extension of their boundaries at the expense of agricultural land would be allowed, and that only in very exceptional circumstances would adjacent land of any sort be granted them. At the same time a stringent Angle of Light Interference would be set for new buildings in all residential districts. As we have seen, this not only limits the number of persons that can be housed to the acre, but also ensures an adequate amount of open space per head. A similar provision, but allowing greater density, would be made for commercial and industrial districts. One very desirable result of limiting the density of occupation is that this also tends to limit the rise of land values, except in the case of land with a particular amenity or convenience value. Another step which would be taken to the same end would be a much stricter zoning of present residential areas to prevent the spread of commerce and industry across them—a very noticeable tendency in the West End of London today. The immediate result of these measures would probably be a general fall in the values of residential districts and a rise in most of the industrial and some of the commercial, since less wasteful and more

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intensive development of these last would be foreshadowed. By the proper operation of compensation and betterment much could be done to balance these differences; but public funds would probably have to be available to make up the difference, at least in the early stages. Part of these could be provided out of the saving which could be made in the present subsidies for rehousing on expensive sites. (In the Housing Bill of 1938 provision was made for an expenditure of £54,000,000 on these over a period of forty years.) Part would be paid out of a Central Planning Fund. The attitude of the Ministry of Planning towards the planning body of any large city—presumably the municipality itself—would be somewhat as follows: “Your average density of population is only so much; yet there is a shortage of so many acres of open space in the following wards. . . . Traffic congestion is excessive both in the centre of the city and on the main roads serving it. Distances between outlying suburbs and the main commercial and industrial areas are already too great. You have a preponderant majority of old houses hardly worth their upkeep in certain suburbs—which are further compromised by sporadic industrial development. We suggest that you prepare a plan for the large-scale clearing and redeveloping of these suburbs. Using the statutory Angle of Light Interference these areas can be made to accommodate, say, three times their present population, in conditions infinitely preferable to those which obtain now. Thus you will create for future development an adequate pool of land that can be freed for future replanning. The following industrial areas are particularly unsatisfactory both as regards planning and the obsolescence of the buildings.

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. . . We suggest that these be cleared and replanned so as to provide the additional accommodation which will be needed for those industries affected by the first half of your scheme. We are ourselves taking steps to ease your difficulties by diverting some of your factories and your population to other centres. We shall also do everything we can to help you by arranging what finance is necessary, and by every possible assistance from our technical staff."

It is amusing to picture the effect that would be produced under present conditions by the bombshell contained in the penultimate sentence. Try to take away our population and industries ! For some quite unjustifiable reason the attitude of all large towns is one of pride in their size. Like the suburbanite who pursues an ever-receding country at the edge of his town, the towns themselves dream unrealizable dreams of a happy day when their income from rates will increase and their expenditure will not increase proportionately. Led on by this will-o'-the-wisp they do all in their power to attract more population and industry, though yearly they find themselves less able to cope with all those difficulties which we have examined of the too-large town, and yearly they are less able to afford, without help from the State, measures to combat them. As we have seen, the most economical size of town to administer appears to be one with a population of not under 50,000 nor over 100,000. It would be an excellent thing, and conducive to better thinking on the part of our local authorities, if we were to adopt a Gilbertian plan in classifying towns. Let all mayors be Lord Mayors until their cities reached, say, 100,000—and then, reduce them to the ranks ! That, at least, is what one

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is tempted to recommend today. It remains to be seen, when the new form of town has been built, to what extent the optimum size will be increased. Certainly one of the principal aims of a Ministry of Planning should be to substitute for the present senseless pride in the mere size of a town, a reasoned pride in its efficiency and comfort. Yet no less certainly any official policy of enticement calculated to lure industry and population away from large cities would rouse considerable opposition. On the other hand some such policy has now become quite unavoidable, and is actually being strongly urged by much influential opinion. Not only is it regarded as imperative by all planners that the spread of certain towns must cease ; but, failing at least a temporary reduction in their population, the task of replanning them is going to be worse complicated by the difficulty, already great, of finding "decanting" sites in which to house that part of the population whose homes are being replanned.

We have already examined the various causes which determine the location of industry, and the indications were that though many industries, especially the heavy ones, have incontrovertibly good reasons for being where they are, yet many others could have been sited elsewhere with no ill effects to themselves. This is doubly true now that the electricity grid can provide power far from existing towns, and road transport has greatly reduced industry's dependence on the railway. There must be many factories in towns today whose reasons for being there, sound enough when the original decision was taken, have no longer much force. In such cases, three factors operate against the probability of migration. The management know all the circum-

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stances of their present neighbourhood, all costs can be exactly gauged. They know little about the probable effects of moving to a different district, and have little technical knowledge or experience by which to judge them. Secondly, both they and their employees are housed in possible, if sometimes very inconvenient, relation to their work. This might not be the case elsewhere. Thirdly, moving costs money, and may entail a certain hiatus if not an actual reduction in "goodwill." In consequence of these things any industrial enterprise is very reluctant to move, and does so only for the strongest reasons. Generally speaking, the larger it is the deeper are its roots. If we are proposing to lure an established concern away from its present position and induce it to settle in a new place, it is on those three notes we must play. A Ministry of Planning would be armed with exact information about industrial and commercial possibilities in the new area. Its highly trained technical experts would have access to facts and figures beyond the reach of the business man. They would be, in a sense, super-salesmen. Secondly, a Ministry of Planning, through its subordinate planning authorities, would be in a position to offer not only modern, well-planned factories, equipped with all desirable services, on terms ludicrously low compared with those demanded in urban or suburban districts, but also good and ample housing in the vicinity. We have already seen on page 138 how any large planning authority is in a position to offer exceptional value in this way. The profits from the selling and letting of these factories would, incidentally, go towards creating and maintaining a Planning Fund from which the heavy expenses of replanning the old towns, advanced either

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in loans, subsidies, or grants, could be financed. Thirdly, in necessary cases, the manufacturer could be granted help towards the cost of removal. In estimating the probable influence of these three methods of persuasion upon an established industrial concern, it must not be forgotten that those very circumstances which render the removal desirable in the eyes of the planning authority are probably operating also to make the industry more or less dissatisfied with its present site. Furthermore, the prospects of any future expansion being sanctioned in that district would be nil. Can it be doubted that in such a case the persuasive efforts of the planner would be more likely to meet with success than failure—bearing in mind that the future of industry must always be a first consideration of good planning?

Even with some of the pressure on their space relieved by this means, the large towns would find the programme set them impossible to accomplish without further assistance, legislative and financial. The latter, we have seen, could be provided out of a Central Planning Fund, which, starting on borrowed money to begin with, would become self-supporting in a very few years as the fruits of betterment and the profits on its own enterprises began to come in. The first legislative reform needed to strengthen the hand of the towns (and of the regions) would be the abolition of the notorious clause in present town-planning law which forbids the planning of any area in which development appears unlikely, except with the express object of "preserving existing buildings or other objects of architectural, historic, or artistic interest and places of natural interest or beauty." The effect of this is to direct development towards those very areas where little control can be exercised over it

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because its appearance was originally considered "unlikely." Even with its present inadequate powers, planning has surely proved its value too well for there to remain any doubt as to the wisdom of applying it everywhere. Nor should the railways continue to be practically exempted from its control. The influence which has been strong enough to keep them outside the fold until now should be a sufficient guarantee of their ability to resist any possible unfair treatment in the future. Some revision would be called for both of the building by-laws and of town-planning legislation in order to make effective the new standards of density as controlled by Angles of Light Interference. These reforms would call for no payment of compensation, and contain nothing new in principle—they are merely slight and logical extensions of existing powers.

Where new powers would be called for would be for the purpose of moving scattered industrial units out of areas which it was proposed to redevelop and zone as purely residential. Here the utmost use would be made of the persuasive methods we have considered, and, in addition, the possibility of compensation would have to be envisaged. The most difficult aspect of redeveloping large areas of any town lies in the treatment of tenants with considerable tenancies still to run. The clearance orders by which it is possible to obtain control of areas where slum conditions exist point the way for us ; but their application is made far easier by the fact that the great majority of the inhabitants of such areas are on weekly tenancies. When we come to consider the clearance of large acreages of drab but respectable suburbs (which are the material most suitable for our purpose) it is clear that the difficulties will be very much increased. If

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claims for compensation are not to reach impracticable proportions, the principle must be firmly established at the beginning that as long as out-of-pocket moving expenses are granted, no compensation will be payable where equivalent accommodation can be offered at an equal or lower rent in a district with equivalent amenities and from which access to work is no harder. The provision of such accommodation will become progressively easier as replanning proceeds. There will remain, of course, a host of local businesses, mostly of small size, which will suffer very real damage, and to which compensation will have to be paid. This hardship already exists in clearance areas ; and, as the law stands at present, there seems to be a very real need to make redress easier to obtain. In the case of large-scale replanning, many opportunities are bound to occur by which these small businesses can be transferred at public expense to new areas where there will be a growing need for their form and class of service.

In all these instances it is the first steps that will be the most difficult. Once the process of condensation has got well under way, there will be an adequate pool of open space in which the dispossessed inhabitants can be rehoused. Once planning has got well under way there will be a more than adequate financial pool from which compensation and other necessary expenditure can be met. The initial difficulties of the financial pools can be surmounted by a short-term loan ; but the provision of essential pools of open space in large towns will not be got over so easily. A certain amount of juggling will be necessary to provide them. Conditions vary very greatly in different towns ; but on the whole the likeliest areas in which to start work will be the mid-Victorian

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suburbs and those pathetic, once fashionable districts in which the presence of older, much larger houses, now almost decayed and usually inhabited by several families in various degrees of overcrowding, testifies to their decline in the social scale. In London, Kensal Green or parts of Paddington may be taken as examples of the former type, and Islington of the latter. Such suburbs are, as a rule, not far removed from the centre of a town. There is, mixed in with the indifferent housing, usually a sprinkling of poorly accommodated industry, and a considerable amount of open space in small useless bits of all shapes resulting from muddled development. The average life of a working class house in a town is taken at eighty years, after which the cost of upkeep tends to become excessive. There are few houses in these districts that have not passed this figure. If, in most old towns, one starts to examine the houses in districts lying between the central area and the newer outlying suburbs, it is (with certain emphatic exceptions) usually more difficult to find those that might have some claim to survival than those which should come down. In support of this view I may perhaps quote part of a speech made by Sir Charles Bressey to the Royal Institute of British Architects, "Sir Edwin Lutyens and I have driven round innumerable portions of London, and found very few that were not in need of demolition. . . . There is no difficulty in selecting large quarters—miles of them—where the only real remedy for the present state of affairs is wholesale demolition. . . . I hope that if any large proposals of that sort are seriously considered no one will raise the cry of vandalism. There are very large quarters of London where vandalism could have considerable scope without any damage to

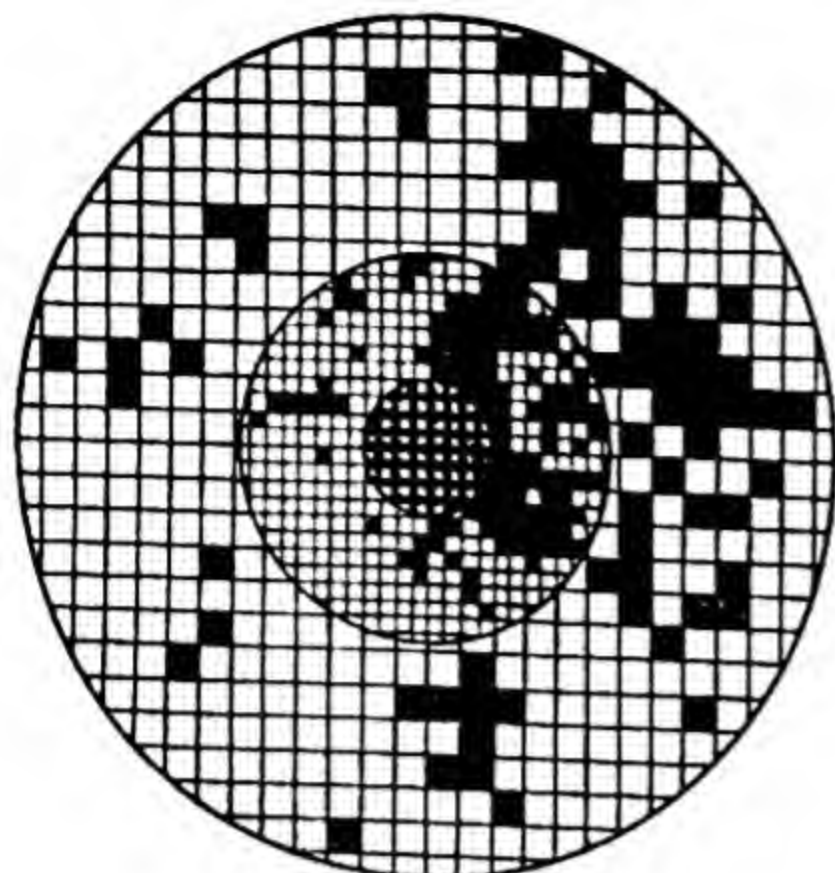
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man or beast, and I sincerely hope that any proposals for the remodelling of London will receive quite impartial and dispassionate consideration by those who have the destinies of London in their hands." Lest it be thought that the speaker was swayed too much by the requirements of traffic, here is a similar opinion by Mr. Maynard Keynes, the economist: "Taking London as our example, we should demolish the majority of existing buildings on the south bank of the river from the County Hall to Greenwich, and lay out these districts as the most magnificent, the most commodious and healthy working-class quarter in the world. The space is at present so ill-used that an equal or larger population could be housed in modern comfort on half the area or less, leaving the rest of it to be devoted to parks, squares, and playgrounds, with lakes, pleasure gardens, and boulevards, and every delight which skill and fancy can devise." The same thing could be said of many districts in all the great cities which it is our object to remodel. It is said, among others, by Dr. Vaughan Cornish, "As regards the close masses of residential streets of Victorian times in London and other great cities, no such consideration [as that of vandalism—G. M. B.] need interfere with the rebuilding which their want of modern conveniences demands. Now that steel instead of stone or brick is the structural material of towns, the present population can be accommodated upon one-third of the ground space by increasing the height of the houses, with no diminution of sunlight, and almost all the added space will be available for town gardening and afforestation." From a slightly different angle Professor Patrick Abercrombie comes in with: "Though it has an indirect bearing upon country planning, it may be added

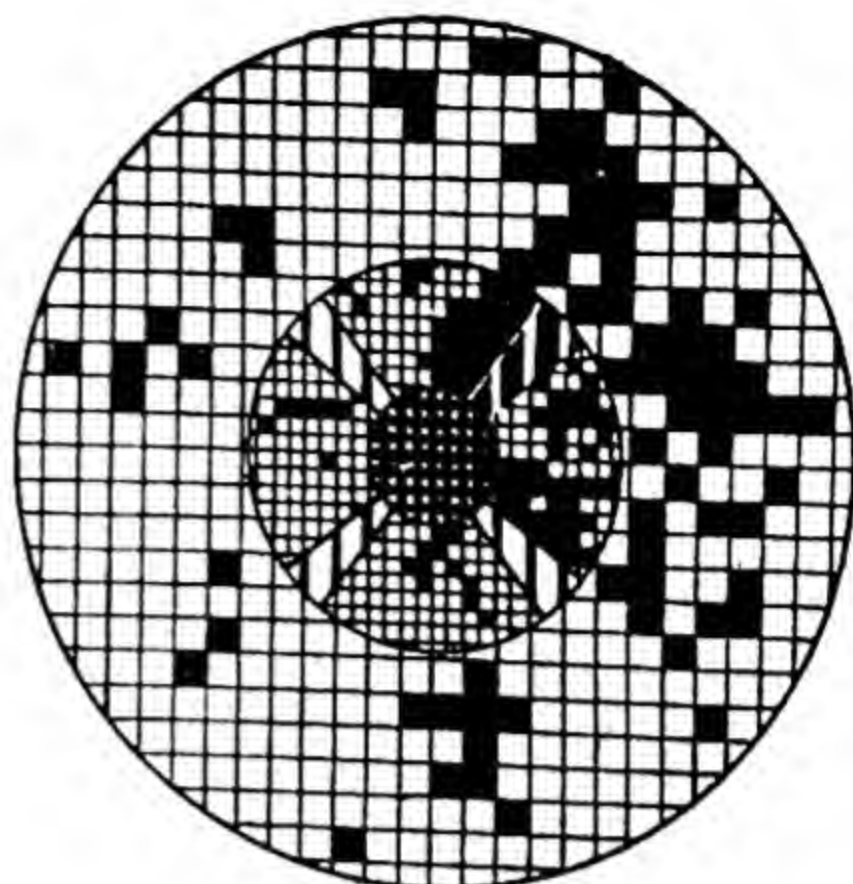
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that large-scale central clearances (going far beyond the scope of the five-year slum-clearance campaign) and redevelopment not only for flats but for the modified terrace planning advocated by The Hundred New Towns Association are much to be commended, thus re-using urban land instead of further encroachment on the country. There is a great amount of waste space within the towns." This policy of "saving the countryside by making the towns fit to live in" could not claim the support of such powerful advocates if there were anything impractical about it.

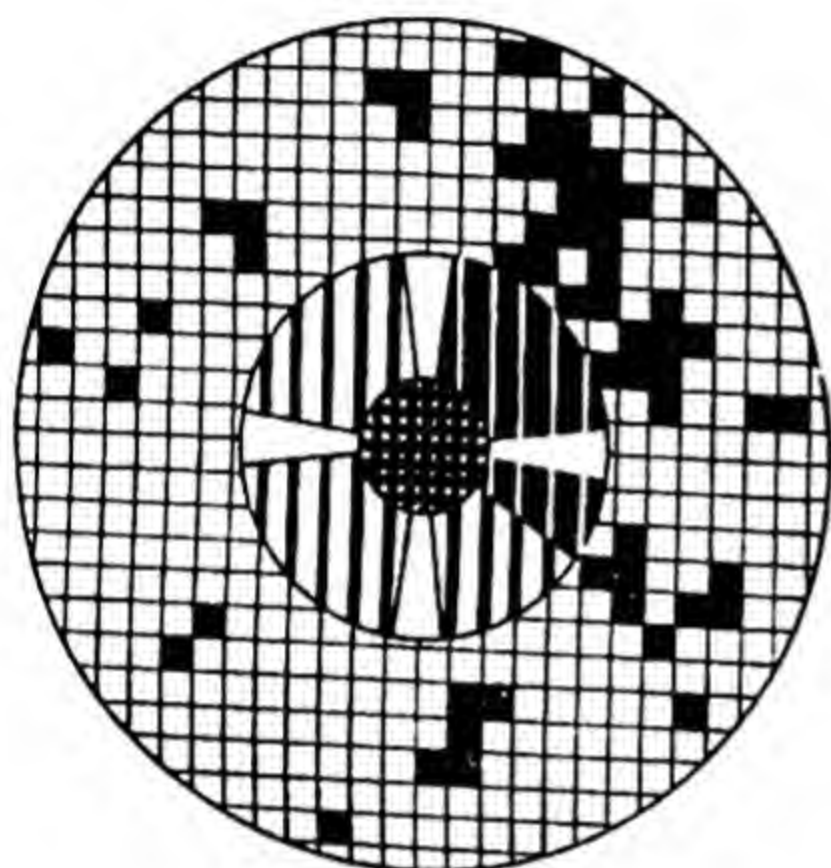
Initial difficulties overcome, then, and remodelling well in progress, what must be the ultimate pattern in mind? A sufficiency of open spaces dotted here and there throughout the old town, and a green belt surrounding it—these amenities made possible by the saving of ground effected by rational housing? Definitely not. What should be envisaged is NOT a town much like any existing English towns but with its residential districts tidied up and a spattering of urban open spaces here and there throughout the rest of it. That would be incomparably better than anything we have today; but it is not good enough for the future. A more ambitious plan should be laid down at the very beginning and steadily put into action through the years. Theoretically the operation of the plan might be divided into three stages (see Fig. 4), though in practice necessary overlapping would make these divisions imperceptible. The first stage would be concerned with establishing a limited number of radial zones or sectors—say, from three to six—in which the rehousing of population, commerce, and industry could be effected. Clearance and rebuilding would start in the sort of Victorian



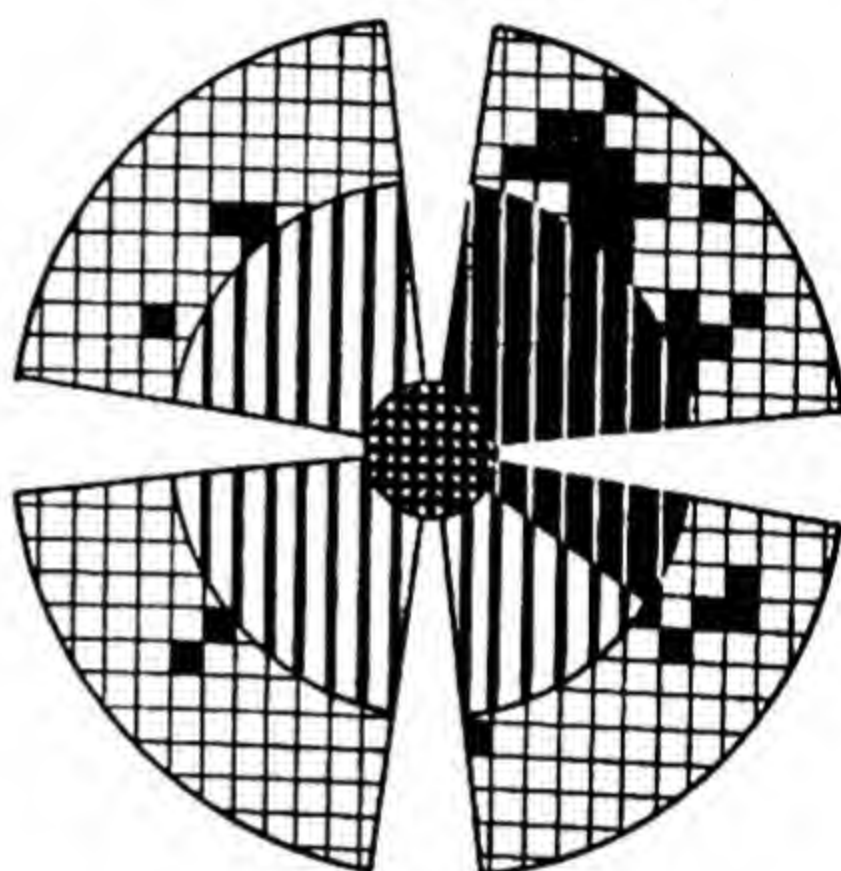
TODAY



STAGE 1.



STAGE 2.



STAGE 3.



A.D. 2000.

TOWN REPLANNING (DIAGRAMMATIC ONLY)

EXPLANATION OF SHADING

	<u>OLD CENTRAL AREA</u>
	<u>VICTORIAN HOUSING</u>
	<u>UNPLANNED INDUSTRY</u>
	<u>1919-39 HOUSING</u>
	<u>RATIONAL HOUSING</u>
	<u>PLANNED INDUSTRY</u>

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districts we have discussed, beginning as far from the centre as possible and working inwards towards it. As these sectors approached the central area, they would necessarily become narrower, though every effort would be made to keep them as wide as possible. Their termination on the fringe of the central area would see the end of the first part of the plan. The new housing provided would be of the ten-storey type we have examined, but no attempt would be made to provide allotments at this stage. Thus the average density of population allowed for would be in the neighbourhood of 125 persons per acre. If we assume for the moment no influx or exodus of population for these areas during the whole of this period, we should now have a very large surplus of vacant flats. Taking London's average density of sixty persons per acre as the basis for a very rough calculation, we should have accommodation for something like twice as many families as would already be living in the sector: rather more than half the flats would be unoccupied. In any other town but London the proportion of unoccupied to occupied dwellings would be even higher, possibly three or even four to one. Certain sectors or parts of sectors would be zoned for industry and commerce, and in these areas, since an Angle of Light Interference of 30 degrees would be adequate and there would be no need to provide either allotments or playing fields, a very much higher allowance of floor space, amounting to something like 66,400 square feet per acre, could be obtained. In our existing towns, if we assume an average of half this area of floor per gross acre we are probably being over-generous. It is almost impossible to attempt even the roughest estimate of the amount of space that might be

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obtained by replanning in an industrial zone. Industries differ so much in their requirements, and, in particular, the suitability of multi-storey building or of long narrow buildings of the type we have been assuming, would have to be considered in relation to each case. The most that can be said is that industrial development dating from the last century is almost always badly planned and wasteful of space ; and that many small or light industries at present occupying ground-floor premises in the older parts of our towns could carry on equally well several storeys higher. As a pure expression of opinion, which I shall not attempt to support with facts or calculations, I estimate that an average reduction by between a half and a third might be looked for. To this, whether it prove right or wrong (and it may very easily be insufficiently optimistic), must be added the effect of the campaign of the Ministry of Planning to decentralize industry.

The second part of the plan would be concerned with clearing much of the remaining areas lying in between our rebuilt radial areas, and creating in them broad green wedges of open land running right up to the rim of the central area. Here, too, would be space for the allotments for the earlier rehousing. The third stage would be the extension of these green wedges outwards, through the 1919-1939 garden suburbs, to the open country beyond, and the completion of replanning in the old areas bordering them. The two latter stages would be far more easily accomplished than the first. Not only would there be by then a very generous pool of land to facilitate the progress of the plan, but there would be a large waiting list of tenants wishing to leave their suburban houses and live in the new flats, nearer



Photo : G. M. Boumphrey.

A Paris housing scheme (unfinished), in which 14-storey towers for childless *ménages* are combined with blocks of three and four storeys.

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the centre of the town and their work, and standing stately and beautiful among their wide green spaces. There would be many firms in industry and commerce only too eager to vacate their out-of-date premises and occupy new ones in the replanned industrial and commercial zones. Outlying suburbs could come down and marginal industrial developments be razed to the ground. The town would by now be little more than one-third of its original size, even if its population had remained at the same figure. Once more the country, real country, could be brought right up to its edge. Finally—if the growing civic pride of the citizens had not brought it about considerably earlier, as might be anticipated with some confidence—would come the transformation of the old central area of the city into something more worthy of its surroundings. By that time so much that was old and inconvenient would have gone, to be replaced by so much that was efficient and—dare we hope it?—beautiful, that there would be less sentiment in tumbling out of the way various buildings which we are reputed to cherish today for their age and for the fact that they are rather more beautiful than most things we ourselves can build.

§ 6. *Planning the New Towns*

That, then, is the sort of policy that the Ministry of Planning would promote in the old towns. We have seen that in its initial stages, at least, it would be very much helped by the withdrawal of a certain proportion of industry with its dependent population, and the re-establishment of these elsewhere, either in satellite or

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new-grown independent towns. One other factor which emphasizes the wisdom of this course is the present existence of a very strong and enthusiastic body of opinion in favour of such decentralization. It is interesting to notice how this opinion has evolved. It is divided, as we saw, into two camps. The Garden Cities and Town Planning Association began as a reaction against the drabness, ugliness, and unhealthiness of the Victorian towns. It fled to the opposite extreme and preached country or mock-country at all costs. Though it strenuously denies it, there can be no doubt that this body's propaganda has been indirectly responsible for much of the harm done by garden suburb development, and, in particular, for the legislative action which has made twelve-to-the-acre housing almost compulsory, irrespective of its suitability. The Hundred New Towns Association has sprung into existence as a reaction against the garden city movement. It sees clearly the harm that the former has done to the whole idea of a town as a town ; and it also realizes that life in even the most perfect garden city is by no means everyone's idea of a perfect existence. In its own words, "Recent 'Town Planning' Acts have, unfortunately, made compulsory a standardized 'open development' ; and even insists on scheduling areas in which the housing density is reduced to 8, 6, 4, and even 2 to the acre. The areas so scheduled are described, somewhat paradoxically, as 'town planned.' What it really means, however, is that the normal characteristics of a town are forbidden to make their appearance in these places." So far so good ; but unfortunately the Association has not allowed its ideas to reach their logical conclusion. It continues, "We have discovered that what the slum-

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dwellers really want is a happy mean between the type of 'open development', as exemplified in the new suburban housing estates on the one hand, and the tenement block on the other. What they want is a place where they can be friendly with their neighbours, and yet have a sense of independence and freedom to pursue their hobbies." The weakness of all this is shown by the reliance placed on "what they want." Some years ago the *Listener* tried a questionnaire on its readers to test the relative popularity of cottages and flats. It was found that the replies were of little value, because the tenants were apt to judge the issue on irrelevancies such as the efficiency of their cooker, or whether the walls were damp. If the relatively highly intelligent readers of the *Listener* react in this way, what weight can possibly be given to the opinions of a random selection of slum-dwellers? If this book has done nothing else, it has surely shown that the factors affecting the choice between cottages and flats are extremely complex and far-reaching. Moreover, in its canvas the Association presumably offered the alternatives of the twelve-to-the-acre cottage, or the usual modern four- or five-storey tenement flat, without lifts, at about forty to the acre—and then offered its own solution. Needless to say, the last won. The truth is that, as things are now, little or no value can be attached to uninformed public opinion on the question of housing. Two garden cities are available for inspection, and have not proved the success of their founders' views in any spectacular fashion. We have already noted on page 113 the unexpected reluctance of prospective tenants to come forward at Wythenshawe for houses built at low densities—that is to say, for the larger houses with

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bigger gardens. The inference is that those people with enough money to be able to pick and choose in their house-hunting are not attracted by this type of development. The Hundred New Towns Association can point to only very imperfect parallel examples of the type of development it advocates. Of housing on the principles put forward in this book, there exists no example on a scale from which anything like an accurate judgment can be drawn. When the three types have been in existence for some little while, and the merits and demerits of each have been shown, then—and not before—will be the time to test their relative popularity with the masses.

This said, it must be agreed that the programme of The Hundred Towns Association is a very great advance on that of the advocates of garden cities. The type of housing they advocate is in terraces not unlike those which make the eighteenth-century streets of such towns as Bath and Cheltenham a delight to the eye ; but they make two important stipulations : “ (1) Nobody shall be required to ascend more than one flight of stairs to the principal living-room. *This requirement implies a complete veto of tenements for family occupation.* (2) There must be a street playground or other recreation space immediately accessible from the front and backs of the houses, where little children can play immediately under their mothers’ eyes.” Had they not put the one sentence in italics I should have done so myself to indicate its falsity in relation to the ideas expressed in this book. The size of town advocated is approximately 2 miles in diameter, set in a circle of country 10 miles across. The population would be limited to 50,000, housed in residential zones at an average density of from eighteen

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to twenty dwellings per acre. In order to permit this they propose "to introduce a Parliamentary Bill with the object of legalizing the planning of *compact* towns." They are probably right in anticipating that "considerable public support will be forthcoming for this action, for there is abundant evidence that the present compulsory association of 'town planning' with sprawl is definitely unpopular, and is becoming more so every day, as new tracts of beautiful countryside are spoilt by this practice of building in scattered units." Certainly my own support would be forthcoming. Decentralization of some sort is almost essential in order to help existing towns through the difficult initial period of replanning. Just as it is clear that a certain number of people would appreciate living in garden cities, so it is clear that a far greater number would appreciate the advantages which towns of this type could offer. At least they are TOWNS, with many of the architectural and social amenities that towns should possess. If they do not express to nearly the fullest extent the immense possibilities of the rational town, they are a considerable step in the right direction. In a great nation like ours there is room for more than one set of opinions. Let us have a few garden cities and a larger number of "New Towns"; but do not, on any account, let us repeat the mistakes of the past in allowing these enterprises to distract our attention from the really urgent task of replanning the 113 large towns in which no less than one half of our population now lives.

The separate questions as to where the new towns are to be built and by whom they are to be built, are better taken together. It is widely recognized by planners, and even by local authorities, that some at least of these new

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enterprises should take the form of satellites or daughter towns, dependent in some respects on an existing large town. Where this is to be the case, it is clearly desirable that the development of the satellite should be closely linked, at least in the early stages, with that of the parent city. Not the least of the advantages of this would be the fact that the "mothering" of the new unit would act as a sop to the older town's commercial and industrial pride, which would inevitably be wounded by the ban placed on its further expansion. In such a case the Ministry of Planning would appoint the older municipality as planning authority to the new town, and—more than this—as the actual instrument of finance and development. The Ministry of Health already has power to acquire sites for new or satellite towns, and the Public Works Loan Board can grant loans for their development. These powers should be amplified so as to cover the building of factories and commercial premises, and it should be made possible for them to be transferred, with due safeguards, to subordinate planning authorities. What is quite essential is that they should not be misused to encourage the development of dormitory towns or barely-removed suburbs for the parent city. It should not be difficult for the Ministry of Planning to guard against this by insisting on the provision of a sufficiently wide belt of open country between the two, and on the provision, at an early stage of the scheme, of industrial and commercial accommodation adequate to provide employment for the bulk of the population expected.

This point brings us to one of the great difficulties encountered when garden cities are founded by private enterprise. It is useless to expect to find tenants for new housing unless employment is available within reasonable

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reach. It is equally hopeless to expect manufacturers to come to a district unprovided with labour. Consequently, both housing and factories must be provided at the start. There then ensues a period of suspense during which commercial and industrial enterprises hesitate to take premises because of the absence of workers, and the latter are unable to go and live there because of the absence of employment—though accommodation for both is ready and waiting. During this initial period, which may be of longer or shorter duration, the promoters must be prepared to carry the heavy cost of land acquisition and development, and of erecting industrial, commercial, and residential buildings, with nothing whatever coming in until the first plunge has been taken, and even then progress must be slow for a number of years. It is for this reason, no doubt, far more than because of the large capital required, that the ordinary commercial speculator has left this field of enterprise alone. But though this obstacle is extremely formidable to the private group of promoters, who can only rely on the support of their own initiative and publicity, it would be negligible in the eyes of a large municipality or other official planning authority, who could count on the full co-operation of the Ministry of Planning in matters of finance and propaganda. A municipality is peculiarly well placed, too, in that it has, in the many industrial and commercial interests situated within the radius of its authority, an admirable list of "prospects" whose circumstances it knows well, and over which it already exercises a measure of control. No doubt even before the actual construction of a single building was commenced it would be able to reach more than a shrewd idea of at least some of the enterprises which could be

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counted upon to form the nucleus of the new township's activities. In this it would be very much helped by its intimate knowledge of the probable effects of its own internal replanning scheme upon industry and population.

Whether the planning authority should also be the administrative authority in a satellite town appears to be largely a question of how far mutual jealousy and mistrust—not infrequent causes of difficulty on joint planning committees—can be controlled in the interests of the greater public good. From the legal point of view there is no reason why the original local authority should not continue to administer the area, the additional expenditure it would incur in providing services and so on being made up partly by the parent corporation and partly by grants or loans from the Central Planning Fund. There are already existing instances of towns embarking on large schemes of suburban development on land not under their administrative control. Whether the same degree of efficiency would be shown by a small rural district council, when suddenly confronted with a large-scale development of this sort, as might be expected from the larger body, is open to question, and even the county council might well find itself out of its depth. My own knowledge of events in a little village of 500 inhabitants which found itself transformed almost overnight into a town of 10,000, inclines me to favour the vesting of all control in the developing authority. This applies only to developments of definite satellite character, however. Where an existing small town, whether in the Special Areas or elsewhere, is selected as suitable for expansion into a larger independent unit, it would seem important for it to retain municipal control in order to foster to the fullest extent the very desirable

attribute of civic consciousness and pride.) For the same reason it would be advisable even for satellite towns to be granted administrative powers as soon as they attained a certain size.

The development of towns not definitely of a satellite character might be effected in any one of several ways, according to local conditions and requirements. Generally speaking, the Ministry of Planning would aim at the establishment of special associations to whom it would grant powers of development and every necessary assistance, financial and otherwise. These associations would closely resemble, on a much larger scale, public utility companies, such as the various housing trusts and associations which have done so much good work in our towns, and would stand in a similar relationship to the local authorities—where these did not themselves form part of them. In the case of new towns to be built in the Special Areas, or old towns to be revived there, the Commissioners already appointed would form a possible nucleus for expansion. In other cases there might well be existing authorities such as county or district councils or large municipalities prepared to take on the task. Railway companies might occasionally see the possibility of advantage to themselves in sponsoring such enterprises. Or several of these bodies might agree to work together. In cases where the Ministry found it impossible to obtain such assistance, it might itself create an *ad hoc* association for the development of the new town. It is probable that the co-operation of private enterprise might be entertained ; but in this event it would be very necessary to ensure that no more than a fair proportion of the profits should go to the producers. Both Letchworth and Welwyn were

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founded on a limited dividend basis, all excess profits to go to the good of the community. In the case of the latter, this feature was lost in the course of financial reconstruction ; but it is still retained at Letchworth, which is now paying its maximum dividend, and even making up its cumulative arrears by degrees. If so much can be done in a town developed by private enterprise, without government assistance of any kind, it is clear that profits very considerably greater would accrue from towns such as we are considering, backed in every possible way by the support of the government and freed almost entirely from the great initial difficulties through which Letchworth and Welwyn had to struggle. These profits would have to pass for the most part into the public purse. As we have seen, our existing large towns are hamstrung by the operation of private profits : we must make quite sure that the new towns shall not be handicapped in the same way.

§ 7. *Planning the Countryside*

In outlining a policy for the proposed new Ministry, I dealt first with its attitude towards the towns, because in them, I am convinced, lies the solution to most of our difficulties as much in rural as in urban areas. But in order of time rather than of importance, the first task of the Ministry would be to appoint authorities to survey and draw up plans, under its own general direction, for every inch of the land—and not merely for parts of it as at present. Its aim would be to keep an accurate general perspective—country-wide thanks to its own supervision and co-ordination, regional by the operation of the regional planning authorities, and local by the

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co-operation of the various constituent bodies or members. If the best results are to be obtained, it is essential that the district or region allotted to each planning authority shall be decided on realistic rather than on political or sentimental grounds. For instance, the group of towns in the north of Staffordshire, generically known as the Potteries, forms a district unit with its own problems and requirements. On the other hand, Wolverhampton and the Black Country towns in the south of the county are part of the great Midland conurbation which includes Birmingham and Coventry. Between the two there is no real connection except the name of the county. I myself live in a salient of Worcestershire which projects into Gloucestershire. Round three-quarters of the compass Gloucestershire lies within a mile or so. The village is essentially a Gloucestershire village. The towns we shop in are in Gloucestershire. The bulk of our produce goes to Gloucestershire markets. Yet, because of the accident of a county boundary, we are, unfortunately, under the planning of Worcestershire.

It is a question whether the delineation of new planning areas should not as far as possible be made an occasion for the revision of administrative boundaries. When planning and administration can march together there is bound to be a great increase in efficiency. The old county boundaries, mostly fixed in Saxon days, have frequently little enough application to modern conditions. Nor should only county boundaries be revised. What could be more absurd than that a town like Manchester should have to be planned and administered as a separate unit from the towns of Salford and Stretford, which are physically part of it ! But the

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rationalization of administrative boundaries is a matter of the utmost difficulty because of rival jealousies and interests which struggle always to keep things as they are—at whatever cost in efficiency. London is an egregious example of this. No less than one-fifth of the population of Great Britain lives within the London Traffic Area. It is quite evident that this constitutes a region which should be planned as one unit, since its needs and problems are all closely related, and no major step can be taken in one part of it without corresponding effects following in other parts. Yet the administration of this region is in the hands of more than a hundred different authorities. Is it any wonder that a prominent planning officer complains that “there is always the greatest difficulty in forecasting locally what will be the future requirements of London for (a) Industrial and residential growth, and the necessary public services ; (b) Major arterial highways ; (c) Aerodromes ; (d) Playing fields and public open spaces ; (e) Cemeteries ”—and concludes, “I have long been convinced that the chief difficulties, expenses and planning problems which face those Authorities arise through the sporadic, uncontrolled growth of London itself, and the lack of a policy and general outline plan for the whole region”? It is indeed almost incredible that such a state of things should have been allowed to continue. It has continued, in spite of strenuous efforts to put an end to it, because (to quote Dr. W. A. Robson) “the difficulties and resistance which faced the reform of London government seemed so overwhelming.” If any one is inclined to underestimate the force of local factions, or to doubt the need for so authoritative a body as a Ministry to exercise effective control over planning, let them con-

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sider this example. And if any one regards planning as an expensive luxury, the enjoyment of which should be put off till better times, let them consider the millions of pounds of money, public and private, that are being poured to waste—simply for want of a plan for London and of a unified administration to work it.

At the present time some three-fifths of England has been or is being planned. And already enough land has been zoned as "residential" to accommodate seven times the total population! This shows clearly how great a change of outlook is called for in planning if we are to achieve our aim. Those legislators who framed our planning laws made it evident that they regarded as potential building land the whole of England which could be built on, except for certain small areas which might be reserved either as buffer strips or beauty spots. Is it to be wondered at that planners (with certain distinguished exceptions) have followed suit and now tend to regard the whole countryside as "ripe for development"—to use a phrase that is itself incriminating, the implication being that good farm land, which built up the first wealth and power of England, cannot be said to have reached maturity until the builder has got to work on it? The root cause of this attitude, in both legislators and planners, is their acceptance of the desire of almost everyone to fly from the towns and live in the country. If, however, our policy is to reverse this drift and make the towns once more places where people will wish to live, we must visualize the country, not as a collection of desirable building sites, but as an essential raw material of agriculture (which is, after all, still our most important industry), and secondly as a place of recreation for the townsman.

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One of the first things the Ministry of Planning would call for would be an advisory plan from the Ministry of Agriculture, showing in detail what areas should be considered as of real importance to farming, market gardening, and food production in general. The Forestry Commissioners would be similarly approached. By this means the present yearly engulfment of valuable land could be stopped and all new development directed to districts where its presence would be to the good of the nation as a whole. Apart from its value to planning, a thoroughgoing survey of the agricultural potentialities of the land is urgently needed. Professor Sir R. G. Stapledon writes in his book, *The Land*, "The need is indeed great; I hope I have already made it obvious how great. . . . A considerable body of information exists already; but it is scattered, unstandardized and diffuse, and has been collected by all manner of different persons for all manner of different purposes. Much of the evidence collected has been published, but a great deal has not. The need of inquiry has been present in the minds of men ever since the first and only edition of Domesday Book became out of date."

As planning legislation now stands, the Ministry of Agriculture might to all practical intents not exist. The landowner who is in a position to "develop" prime agricultural land by handing it over to the builder, but is prevented from doing so by its "reservation" for agriculture in a planning scheme, can claim compensation. (This, of course, coupled with the greed of all local authorities for increase in rateable value, accounts for the preposterous acreage now zoned as residential.) But could it not be urged with equal justice that the

nation, whose land is thus taken out of essential food production with a loss of amenity value in addition, should be entitled to claim compensation from the landlord? This question of compensation is one of the great difficulties of planning in the country as it is in the towns, and its solution is even more difficult, because the less building there is the less will be the amount of betterment to be collected and used in payment of compensation. Temporary Agricultural Reservations, if properly used, can be effective enough to control building on a small scale; but stronger powers are needed where large-scale development is concerned. A Temporary Reservation cannot be applied in advance to districts where development does not seem probable, and it must be brought up for reconsideration every three years. Permission for new building cannot be refused unless the authority is able to show (i) that equally suitable land is available elsewhere at a reasonable price; (ii) that the development would be injurious to health because of lack of services—and that the provision of public services would be either premature or unduly expensive; and (iii) that the amenities would suffer. On the other hand an area can be “restricted”, without the liability of compensation, to a building density so sparse that the provision of public services cannot be demanded; or all building can be permanently prohibited, also without compensation, when “by reason of the situation or nature of the land, the erection of buildings on it would involve danger or injury to health or would cause excessive expenditure of public money in the provision of roads, services, water-supply, or other public services.” These powers may seem wide; but in actual practice they contain gaps which—to use a country expression—

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“you could drive a horse and cart through.” Something stronger is needed.

However desirable the nationalization of land in towns may seem to be, its application to the countryside is simply not practical politics. The alternatives are three. We could adopt the German system of prohibiting all building unless the owner could make out a case for it—the onus of proof resting on him, which is the exact opposite of the procedure reviewed above, where the production of contrary proof is incumbent on the authority. But any such *verboden* policy would be foreign to our character. Or we can adopt either of two systems which, having been endorsed by the Council for the Preservation of Rural England, a body that includes many large landowners, may be assumed to be both practicable and acceptable. The first, which is known as the Pooling of Increment Values, suggests a voluntary association of landowners formed for the purpose of sharing each other's losses and profits. In the beginning a valuation would be made of all the land in the pool, and shares would be allotted to each participant in the enterprise. Thereafter, any landowner whose land was deprived of possible increase in value by the operation of planning would be compensated out of the profits derived from the development of other land in the pool. Not the least of the advantages of this scheme would be the fact that public control would be called for only in the preparation of the plan: the land itself and the working of the financial arrangements would remain in private hands. The second system would be based on a more complete application of the principles of compensation and betterment. A local fund would be formed from the contributions of landowners in a

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position to realize increased values on their land owing to building development—whether they took advantage of this or not ; and out of this fund compensation would be paid to landowners injuriously affected by the plan. Since betterment would be slower to appear than claims for compensation, a national loan would apparently be necessary to carry the scheme through its early stages. It can be assumed, I think, that within the next few years a system based on one or other of these will be put into operation. In the meantime the greatest possible use must be made of persuasive methods. Landowners must be encouraged to reserve their land voluntarily and take their compensation in the form of reduced death duties, which in suitable cases they are now able to do. Services must be provided and every possible facility given to induce the concentration of building in those areas where it is wanted. The Ministry of Planning could do a great deal to secure this by exercising control over the actions of the various bodies concerned, now frequently at variance with one another. Roads, electricity, and the activities of the local authorities must all be centred on the working of one plan, and one plan only. In ways such as these, claims for compensation—if indeed they are still to be tolerated in districts where further development is found to be against the public interest—can be kept down to the minimum.

§ 8. *Planning the Roads*

The subject of road construction and upkeep is so closely bound up with planning that it would seem far better for the new Ministry to take over the functions

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(and the personnel) of the Ministry of Transport. Up to the present this last has shown no signs that it appreciates the urgency of its task or realizes the need for large-scale construction rather than piecemeal dabbling. Its position, which is perhaps an impossible one as things are now, would be immensely strengthened by its incorporation into the complete fabric of planning. I shall not devote any great space to the subject here, since the whole question is dealt with at length in my other book in this series, *British Roads*; but the main points must be mentioned in their relation to planning. The roads of Great Britain are classed variously as Trunk Roads, Class I., Class II., and Unclassified, of which only the first, some 4,500 miles, are the direct responsibility of the Ministry of Transport, the remainder being administered by various local authorities. In "built-up" areas, Class I. roads are eligible for Treasury grants (via the Ministry) of up to 50 per cent., and the remaining two classes up to $33\frac{1}{3}$ per cent. In areas which are not "built-up," the grants may be up to 60 and 50 per cent. respectively (larger grants being payable in certain cases). British roads are the most crowded in the world—with 14.5 motor vehicles per mile against America's 8.2. The rate of increase in the number of vehicles per year is about 6 per cent., which is to say that each day sees about five hundred more vehicles on the roads than the day before. We are as yet nowhere near saturation point—only one person in eighteen owning a motor vehicle as against America's one in less than five. The congestion will therefore increase. The inadequacy of our efforts to reduce it is shown by the facts that in the past thirty years we have increased our road mileage by only $1\frac{1}{2}$ per cent., and that we are now actually spending

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less on the roads than we spent ten years ago. On the grounds of economy, comfort, and safety it is clear that a drastic revision of our road policy is overdue. And to these three reasons must now be added a fourth—national defence. The greatest immediate danger confronting us in time of war is a breakdown of transport communications. Railways are far more vulnerable to bomb attack from the air than are roads. To repair a permanent way takes valuable time—possibly days, whereas a road can be made negotiable in an hour or two. Moreover, our network of lanes which could be used in an emergency provides a reserve of safety which the railway can never rival.

Much of the congestion and danger on our roads is due to our failure to visualize their functions properly and separate them in our minds. Classification by width or even by traffic volume is futile. What is wanted is classification by function. There is the "service" road and the "through" road—and to these has been added in the last few years the idea of the "motor-way." The service road serves to give access to premises of various sorts. Traffic using it is necessarily erratic in its movements: it stops, starts, turns on and off the road and parks for reasonable periods. The through road leads from place to place. Along it the fast coaches of a little over a century ago did their fifteen miles per hour. We are now trying to make it suitable for fast cars to do their seventy—and at the same time, by allowing building on both sides of it we were, at least until the passing of the Ribbon Development Act (which is effective only in the hands of a local authority rich enough to meet the claims for compensation) requiring it to function as a service road as well! It should be clear enough that

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this is asking the impossible in most cases—and would still have been even had the spread of suburbia and of ribbon building not made it more so. There are long and favourable stretches in country districts where the desired result can be obtained; but even these are constantly interrupted by sections where fast traffic is a menace. Moreover, many roads follow routes which make their transformation into speedways quite impossible even where no buildings complicate the problem.

From the point of view of beauty, no less than of safety and efficiency, these efforts are to be deplored. The present system of grants for road work offers a direct incentive to a local authority to bring into a higher classification a road which is quite well as it is. Trees are felled, banks are cut back, and hedges replaced by concrete posts strung with wire—all to make a lane which was safe for its few vehicles travelling at twenty-five miles an hour, violently unsafe for the same at forty. In this way millions of pounds are being squandered on the violation of hundreds of miles of the little country lanes which once contributed so much to the beauty of England. For this reason, no less than for that of efficiency and safety, we require a system of "motor-ways," similar to those which America, Germany, and Italy (with not half our need) are constructing with such energy. The man-in-the-street may be excusably suspicious of much of the propaganda for the construction of motor-ways which is put forward by various road interests; but he can surely accept as entirely unbiased the words of Professor Patrick Abercrombie, the well-known planner, "It would be sounder for traffic, cheaper and better for amenities, if a few completely new roads, on the model of the auto-

strade of Italy, were constructed." Note that it would be not only better but cheaper. The present policy of patchwork reconstruction is extraordinarily expensive in money as well as in beauty. Since proximity to a road usually increases the value of land, high prices have often to be paid in order to carry out necessary improvements ; buildings may have to be demolished and compensation paid. New roads, on the other hand, could and would be planned to run mainly through districts where land would be available at an agricultural figure, and where buildings would rarely be encountered.

It has been calculated by competent authority that the increased land values created by the construction of the Watford By-pass were sufficient to have paid the total cost of its construction twenty times over. The public paid the bill, but private owners drew the profits—and in doing so did much to impair the usefulness of the new road. No such enormous profits could be anticipated in the case of a network of motor-ways. The tragic example of the Kingston By-pass and other arterial roads of the last twenty years would surely be deterrent enough to ensure the prohibition of housing development actually along the new roads. Nevertheless it is probable that their construction would lead to increased land values in certain districts. In such cases care would be taken to levy due betterment on the landowners concerned, so as to offset at least part of the public money expended. With special motor-ways available for fast traffic between towns, much of the congestion would be taken off the present through and through-cum-service roads, which would then be adequate for their purpose, and our country lanes could be left unmarred, for the pleasure of the passer-by. Indeed it must be said that just as the

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rebuilding of much of our large towns is essential for the preservation of our countryside, so is the building of a system of motor-ways essential for the preservation of our country lanes—and in both cases the “amenity” reason given is backed up by a host of “practical” considerations.

§ 9. *The Townsman in the Country. Conclusion*

The remaining chief function of the countryside is to serve as a place of recreation and re-creation for the townsman. However perfect we may make the towns, there will always exist in mankind the need and the desire to get away at times into the country—into the real, unspoiled country which can give from its peace and beauty a solace and restfulness to be found nowhere else. Man can live without towns ; but he cannot live in full mental health without periodic access to the country. The idea that he could be given simultaneous enjoyment of both environments by housing him in a compromise between the two has proved itself erroneous : he sorely misses the full flavour of town life and he still feels the need for the real country. Any planning policy which fails to provide for this need must be faulty. In this book I have tried to show how the countryside can be preserved in at least its present degree of beauty, and how access to it can be speeded up by the construction of adequate roads outside the towns and by the simultaneous opening up and condensation of the towns themselves. There remains the question of what provision should be made in the country for the townsman. It must be admitted that his incursion there at the

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present time is as often as not a nuisance. He tends to trespass in places where damage results from his presence, which the countryman does not. He leaves gates open, which the countryman does not. He lights fires in dangerous places and destroys trees and shrubs to feed them, which the countryman does not. He makes loud and unpleasant noises and leaves litter behind him—both faults of the countryman also, but negligible by reason of his small numbers. These failings are not to be wondered at, for it is only within the last twenty years or so that the poorer townsman has been able to get into touch with the country at more than very infrequent intervals, after being cut off from it, he and his forbears, for more than a hundred years. Already there are signs of improvement in his conduct. The way to hasten the improvement is to give him still greater facilities for reaching the country—he will claim them, in any case, whether we do so or not ! Let him feel that he is not only provided for but welcome, and he will be the more ready to accept suggestions for his behaviour. There need be no antagonism between the townsman and the farmer. In fact the latter stands to gain rather than lose by the occasional presence of visitors from the towns.

One direction in which improvement might well be made is in the provision of footpaths. Almost every country district at present has its footpaths, many of them short cuts which preserve ancient rights of way : they are known to the local inhabitants and used by them ; but to the stranger they are frequently something of a mystery with their broken-down or overgrown stiles, their vague courses and indeterminate goals. What wonder that he strays from them and trespasses, sometimes in the genuine belief that he is still

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on the right line, sometimes in sheer desperation? What is really wanted is the provision of an up-to-date system of field and woodland paths designed to serve the touring pedestrian as well as the local inhabitant. By this means much trespass and damage to fences and crops would be avoided, the roads would be freed to a certain extent, and the townsman's pleasure in the country would be greatly increased. The other side of the question is that many old rights of way are at present inconvenient to the farmer, often running diagonally across a field and interrupting cultivation in the most awkward way: the re-surveying of field-paths would give an opportunity for suiting the convenience of the farmer or landowner, who in return might be prepared to yield a little for the benefit of the visitor.

In 1929 the Government appointed a committee to consider the advisability of establishing National Parks under a national authority. The recommendation of the committee was that a national authority should be set up for this purpose and national expenditure be authorized. No such action was taken, and the financial slump which came two years later effectually put all such thoughts out of the public mind. The Town and Country Planning Act of 1932 gave local authorities certain limited powers to acquire reservations of scenically beautiful country; but these are inadequate in themselves, and offer by no means an effective alternative to the establishment of a national authority as recommended. Here, then, would be another activity for the Ministry of Planning. National Parks can only be planned on a national basis. Even a regional outlook is insufficiently wide, since what has to be considered is a system of Parks so placed as to serve all the various densely popu-

lated districts of the British Isles. It is doubtful whether the functions of a National Park could be reconciled with the demands of arable farming in districts where this predominates, and therefore such areas as the Cotswolds could hardly be included. Here the most that could be done would be to provide for the visitor in every reasonable way, and at the same time make sure that the local authorities used their full powers to prevent unnecessary or unsightly development. As the law stands at present, the power of a local authority to control the appearance of new buildings is only optional. They may, if they think fit, include it in their scheme. On the other hand, they may content themselves with the control of structural safety and health given them by the building regulations and their by-laws—and let appearance go hang ! The average local authority and even its advisory panel can by no means be regarded as infallible arbiters of taste ; but their control is infinitely to be preferred to the absence of any supervision, such as obtains in many districts with disastrous results. The trained architect can usually be trusted to avoid extreme offence ; but the same cannot be said of every local builder. The exercise of the power to control elevations should be made obligatory everywhere.

The Council for the Preservation of Rural England in its evidence before the National Parks Committee suggested the following districts as including suitable areas for reservation in England and Wales : Land's End, Pembrokeshire, The Lake District, Snowdonia, Dartmoor, The Pennines, The Forest of Dean (and Wye Valley), Sussex Downs, The New Forest, and the Norfolk Broads. The idea of a National Park is, of course, very far removed from that of a Holiday Camp.

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No organized recreation would be provided—on the contrary, every effort would be made to preserve existing natural features and wild life, and to prevent the erection of any buildings except those required for agriculture or the like, and a certain number of hotels, hostels, or camping sites carefully designed and still more carefully placed. Motor traffic would be either excluded or confined to a limited number of roads. The New Forest may already be considered a National Park, and a part of the Forest of Dean and an area in Argyllshire have recently been dedicated to the same purpose by the Forestry Commissioners. A national extension of this process would do much to help the countryside generally, at least in the warmer months of the year when such help is most needed, by relieving some of the pressure of urban incursions. It would do something to relieve the serious overcrowding which takes place at existing holiday resorts during the season. Best of all, it would do a great deal for town-dwellers by giving them an opportunity to live from time to time as close to nature as modern conditions permit. There is no form of education which could have so great an effect at so little cost.

This book has dealt mostly with the towns, because it is in the towns that three-quarters of our population lives and must continue to live, and because it is the towns that hold the key to the problems I have been discussing. But throughout every preoccupation with detail there have been two main thoughts underlying all else : how to satisfy the deep need of every one of us for unspoiled natural beauty and—its complement—for beauty of our own creation. Fulfilment of the first will be much ; but it will not be enough. We may solve

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the problem of the ever-spreading town and its vampire suburbs. We may go on to achieve the ideal of towns spacious and green whose extent is limited by considerations of health, happiness, and sound economics. The countryside may be freed from urban intrusion and revert once again to its proper functions of serving agriculture and refreshing the townsman. Yet these things will not be enough if they are unaccompanied by the creation of new beauty. Against this the preservation of old beauty, however desirable, can weigh but little. And the creation of new beauty on a broad and satisfying scale will proceed from one source only—the reawakening of a desire for it in the minds of the masses, desire based on knowledge and understanding of the achievements of their times and on pride to will their full expression. It is for this, even more than for the many practical considerations dealt with in the course of this book, that we must first strive to make the towns worthy of our age and its almost fabulous powers. The rest will follow.

* * * * *

In order to keep in proper perspective the views expressed in this book, will the reader who has followed me so far turn back now to page xv and re-read the sentences numbered (i), (ii), and (iii)—especially the last ?

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